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Statistics of Household Microwave Oven Use

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ABSTRACT

The purpose of the work reported here was to obtain statistical information on the use of Microwave Ovens (MWO's) in the home with respect to foods cooked or heated and the amount of MWO usage relative to other cooking devices. The work was funded jointly by the National Bureau of Standards and the Department of Energy. Data were provided by the Market Research Corporation of America (MRCA) from a national menu census survey conducted in 1975. NBS also conducted a very small survey on MWO displacement of other cooking devices.

From its 2000 household panel, MRCA identified 96 households that owned MWO's and selected a demographically matched set of 96 non-owner households. Aggregated data were provided on Servings (dishes prepared) and Eatings (persons partaking of a Serving) over a two week period for each household. The main findings from analyses of these data are:

- There was little difference between the owner and non-owner households in terms of total Eatings or Servings or in the proportions of leftovers eaten.
- In owner households, MWO's accounted for approximately 10 percent of the Servings and 9 percent of the Eatings.
- Leftovers accounted for 9 percent of the Eatings for both groups, and for 11 percent of owner Servings and 9 percent of non-owner Servings.
- MWO's were used by owners for 26 percent of leftover Servings and 23 percent of leftover Eatings.

INTRODUCTION

Congress initiated an energy efficiency improvement program for major household consumer products as part of its overall energy conservation program with its Energy Policy

and Conservation Act, EPCA (1), followed by the Energy Conservation and Product Act (2). Kitchen ranges and ovens, including microwave ovens (MWO's) are among the products covered by the EPCA. Products covered by this program will bear point-of-sale labels informing consumers of energy efficiency and estimated annual operating cost.

Standardized tests and methods for computing efficiencies and operating costs have been prepared for all products covered by the EPCA. These test procedures include estimates of the average annual amount of consumer service performed by each product, which form the bases for the annual cost estimates. Since MWO's account for a large part of the market in cooking equipment and were relatively new at the start of the project, the Department of Energy (DOE) and the National Bureau of Standards (NBS) decided that a national survey was needed to answer certain questions about MWO usage. These questions were:

1. Do MWO owners differ from non-owners in the amounts or types of foods cooked or heated?

2. What share of the cooking and heating was actually done in MWO's during the test year by MWO owners, notwithstanding what could have been done?

3. A question added after the data assembly was committed was: How much of the cooking loads did the MWO's take over from the conventional cooking tops and from the ovens?

This report contains 1975 field survey information on the use of MWO's and other cooking equipment for the cooking and heating of foods. The data were collected by the Market Research Corporation of America (MRCA) as part of its periodic menu census program. MRCA has a nationwide panel of 2000 participating households that was statistically selected to be representative of the general U.S. population. (See Appendix A for details.) Their clients include many major corporations needing reliable statistical information on consumer use of goods and services. MRCA identified 96 owners of MWO's and a demographically matched sample of 96 non-owners as the subjects from its overall panel and abstracted the required information for the 192 households from its general data base. The analysis was done by NBS. In addition to providing information applicable to the energy conservation program, the results can be used as base year data for similar studies in the

future and as background for laboratory studies of consumer behavior. Some additional data are provided beyond the immediate needs for the potential benefit of future investigators.

The raw data consist of detailed records from each household on foods cooked or heated during a period of two weeks, with these periods being distributed over a year to cover possible seasonal effects. MRCA excluded all cases not involving cooking or heating at home and provided two types of summary report. For Report A, records were examined to identify all food items prepared at least once in a MWO. Then for all such food items, MRCA reported how often the food was prepared in a MWO, how often it was cooked or heated by MWO households but not in the MWO, and how often the same item was prepared by the matched, non-MWO households. A parallel report (Report B) was also prepared covering all items prepared by the 192 households, whether or not an MWO had been used.

Data aggregations were selected by NBS to avoid the presentation of unneeded detail, to protect proprietary rights reserved by the contractor, and to minimize artificialities that might have arisen due to MRCA's particular data structure or detailed breakdown of food item classification. Limitations on the release of MRCA data are given in Appendix D.

Many questions about MWO cooking can be addressed using these data. However, this report is limited to matters bearing on energy-related test procedures. It was not the objective of the study to test predetermined hypotheses about cooking practices. Rather, the objective was to explore these practices as they existed in 1975, and to relate them to the energy efficiency improvement program and to current needs of the Department of Energy (DOE).

PRINCIPAL DEFINITIONS

Servings and Eatings are specialized terms used by the contractor throughout their reports and tabulations, and have been left intact by the authors.

Servings, S: A serving means an occasion in which a cooking device (MWO or other, usually a conventional range)

is used to prepare a given dish, whether it is to be consumed by one or more eaters.

Eatings, E: There is one "eating" for each person that partakes of a given dish. Thus, a single serving of roast beef might generate five "eatings" and a serving of coffee more than one eating.

Microwave Candidate Foods Report, A: A food category qualified for inclusion in the "A" report if and only if it was prepared at least once in an MWO by a member of the 96 household owner panel. If a category qualified, the corresponding non-owner data were also provided. Items eaten without being cooked or heated at home are not included in Report A or B.

All Foods Report, B: This report covers all foods cooked or heated at home, whether an MWO was ever used for the item or not.

First-Time Preparation: This refers to the initial preparation of a dish, with the alternative being preparation as a left-over, L/O.

Left-Over: This refers to a cooked or heated leftover.

RESULTS

The principal findings are derived from analysis of the grand totals of Eatings and Servings presented in Table 1. Many of the conclusions follow directly from examination of this and other tables. Readers are cautioned against making unduly refined conclusions from these data, since changes from a very few households could significantly affect some results.

There is no general rule for deciding the importance of any given ratio, overall factor or comparative difference; readers must decide this for each application. Because neither consumer safety nor great economic risk is involved; it is suggested that strong evidence (e.g., in the first or second significant figures) be required before readers can make important distinctions. The main comparisons are between MWO owners and non-owners to identify similarities and differences in cooking behavior that are associated with MWO ownership, and between the A report (MWO-Candidate

Table 1. Total Servings (S), total Eatings (E), and Eatings per Serving (E/S).

		MWO Owners									Non-Owners		
		Using an MWO			Not using an MWO			Total			Total		
		S	E	E/S	S	E	E/S	S	E	E/S	S	E	E/S
MWO Candidate Foods (A Report)	First Time	613	1 246	2.03	4 387	9 350	2.13	5 000	10 596	2.12	4 945	10 329	2.09
	Left Overs	222	351	1.58	401	716	1.79	623	1 067	1.71	459	972	2.12
	Total	835	1 597	1.91	4 788	10 066	2.10	5 623	11 663	2.07	5 404	11 301	2.09
All Foods (B Report)	First Time	613	1 246	2.03	6 652	14 261	2.14	7 265	15 507	2.13	7 343	15 623	2.13
	Left Overs	222	351	1.58	641	1 157	1.80	863	1 508	1.75	752	1 532	2.04
	Total	835	1 597	1.91	7 293	15 418	2.11	8 128	17 015	2.09	8 095	17 155	2.12

Numbers in Sample	MWO Owners	Non-MWO Owners
Households (HH)	96	96
Persons	260	260
Persons/HH	2.7	2.7
HH - Days @ 14 days each	1344	1344

Foods) and the B report (All Foods) bearing on matters of food selection.

The numbers of Eatings generally indicate the amount of food cooked, and the number of Servings generally indicate the number of cooking events. Servings overestimate the number of cooking events to the extent that more than one dish was cooked at the same time in an oven. A low ratio of Eatings per Serving indicates more cooking and eating alone (for example, homemaker lunches). The following discussion involves a closer examination of relationships seen in Table 1 and elsewhere.

Servings and Eatings:

As seen in Table 2, total Eatings and total Servings for "all foods" were almost identical for owners and non-owners, in spite of the fact that skipping meals, eating away from home, snacking habits, and the number of hot dishes per meal could vary widely among households. Chi-squared (χ^2) statistics are provided for more formal studies of statistical independence between attribute systems. The percentage, P, associated with each reported χ^2 indicates the probability that a χ^2 at least that large could have occurred by chance, given no real relationship between attribute systems. (An explanation of contingency tables and χ^2 calculations is provided in Appendix B, along with an example in which the relative tendencies of owners and non-owners to use leftovers are examined. No significant difference was found.)

Regarding the MWO-Candidate Foods (Report A), it should be noted that a food became a member of this group only if it was cooked or heated at least once in a MWO. Given this selection process, it is not surprising to find a slight bias for MWO-owners to prepare and eat more foods from the A group than non-owners. For owners, 31 percent of both Servings and Eatings came from food types never cooked in MWO's, while 33 percent of the Servings and 34 percent of the Eatings by non-owners came from these same groups. Generally, owners and non-owners display quite similar frequencies of preparing MWO-Candidate Foods and All Foods with respect to the number of First Time, Leftover, and Total Eatings and Servings.

Referring directly to the All Foods (Report B) group in Table 1, Leftovers accounted for 9 percent of the Eatings for both owners and non-owners and for 9 percent of the

Table 2. Comparisons of Servings and Eatings as a function of MWO ownership and food categorization.

	Servings		Eatings	
	First Time		First Time	
	MWO-Owners	Non-Owners	MWO-Owners	Non-Owners
MWO Candidate Foods	5 000	4 945	10 596	10 329
All Foods	7 265	7 343	15 507	15 623
	$\chi^2 = 0.70$, $p \simeq 75\%$, df = 1		$\chi^2 = 3.40$, $p \simeq 4\%$, df = 1	
	Left Overs		Left Overs	
	MWO-Owners	Non-Owners	MWO-Owners	Non-Owners
MWO Candidates Foods	623	459	1 067	972
All Foods	863	752	1 508	1 532
	$\chi^2 = 4.49$, $p \simeq 3\%$, df = 1		$\chi^2 = 3.62$, $p \simeq 6\%$, df = 1	
	Total		Total	
	MWO-Owners	Non-Owners	MWO-Owners	Non-Owners
MWO Candidates Foods	5 623	5 404	11 663	11 301
All Foods	8 128	8 095	17 015	17 155
	$\chi^2 = 2.09$, $p \simeq 16\%$, df = 1		$\chi^2 = 5.42$, $p \simeq 2\%$, df = 1	

df = degrees of freedom in a χ^2 contingency table calculation.

Servings for non-owners versus 11 percent of the Servings for owners. In other words, MWO-owners utilize about the same number of Leftovers as do non-owners. The χ^2 computation example in Appendix B indicates a very close similarity between Eatings by owners and non-owners with respect to the proportion of first time and leftover foods.

MWO-Owner Eatings and Servings:

MWO's accounted for 10 percent of the total Servings and 9 percent of the total Eatings for the owner group, indicating a tendency to use MWO's for smaller quantities of food at a time.

Leftovers prepared in MWO's accounted for 26 percent of all Leftover Servings and 23 percent of all Leftover Eatings in MWO households (see Table 3). Preparing Leftovers accounted for 27 percent of all MWO uses in terms of Servings and 22 percent in terms of Eatings.

Table 3. Servings and Eatings for Report B foods; comparison of Leftover and Total foods for MWO households.

	Servings		Eatings	
	Prepared in MWO	All Heated or Cooked Foods	Prepared in MWO	All Heated or Cooked Foods
Leftovers	222	863	351	1 508
Total	835	8 128	1 597	17 015

Food Selection:

NBS and others have observed differences in dielectric constants among food types which affects energy absorption rates. Also, roles are suggested by some for the use of standardized menus in the development of some numerical factors used in the test procedures. Data on food selection are presented in the event that DOE or other interested parties determine that food type has an important bearing on MWO cooking and heating efficiency for test procedure purposes. MRCA reported data involving well over a hundred primary and subclassifications of food. Many of these classifications reflect the special requests of commercial clients and are much too detailed for present purposes. At the request of NBS, MRCA regrouped the data using two separate methods. Cross tabulations were then generated between these groupings and selected demographic

characteristics of the subject groups. The grouping methods were:

METHOD I

Title	Description
Liquids	Beverages, soup, baby food, gravy and sauces
Animal Protein	Beef, lamb, fish, poultry, processed meats
Fruits & Vegs.	Vegetables (including potatoes), fruits
Hot Dishes	Dishes with eggs, pasta, rice, cereal, cheese
Baked Items	Breads, cakes, cookies, pies
Other (I)	Remaining items not covered above

METHOD II

Title	Description
Raw	Ingredients not previously cooked nor frozen at preparation time
Convenience	Substantially pre-cooked (generally needs only heating or browning)
Frozen	Initially frozen at preparation time
Other (II)	Remaining items not covered above

Tendencies of owners and non-owners in the Serving and Eating of various food groups are shown in Tables 4 and 5. Omitting consideration of the "Other" categories, difference percentages were computed by dividing the larger number of Eatings or Servings by the smaller number for each food group. Those cases where the difference was 5 percent or more are shown in Table 6. Owners of MWO's showed a consistent tendency to cook or heat baked goods more than non-owners.

Table 4. Comparison of MWO-owner and non-owner households for preparing five different categories of food.

ALL FOODS (Report B)

Food Group	Servings		Eatings	
	MWO-Owners	Non-Owners	MWO-Owners	Non-Owners
Liquids	2 778	2 844	4 507	4 656
Animal Protein	1 249	1 208	3 050	3 084
Fruits & Vegs.	1 160	1 207	3 092	3 271
Hot Dishes	1 249	1 314	2 787	2 879
Baked Items	1 501	1 314	3 103	2 767
Subtotal	7 937	7 887	16 539	16 657
Other	191	208	476	498
Total	8 128	8 095	17 015	17 155
Considering only the five main food groups	$\chi^2 = 16.31$, $p < 1\%$ df = 4		$\chi^2 = 27.95$, $p < 1\%$	
Considering all five main food groups and all "other" foods	$\chi^2 = 17.04$, $p < 1\%$ df = 5		$\chi^2 = 45.48$, $p < 1\%$	

MICROWAVE CANDIDATE FOODS (Report A)

Food Group	Servings		Eatings	
	MWO-Owners	Non-Owners	MWO-Owners	Non-Owners
Liquids	1 860	1 996	3 057	3 282
Animal Protein	982	889	2 414	2 241
Fruits & Vegs.	829	840	2 222	2 297
Hot Dishes	843	767	1 876	1 698
Baked Items	1 061	866	2 004	1 677
Subtotal	5 575	5 358	11 573	11 195
Other	48	46	90	106
Total	5 623	5 404	11 663	11 301
Considering only the five main food groups	$\chi^2 = 28.44$, $p < 1\%$ df = 4		$\chi^2 = 47.31$, $p < 1\%$	
Considering all five main food groups and all "other" foods	$\chi^2 = 28.44$, $p < 1\%$ df = 5		$\chi^2 = 49.19$, $p < 1\%$	

Table 5. Comparison of MWO-owners and non-owners for the pre-preparation status of foods cooked or heated.

ALL FOODS (Report B)

Pre-Preparation Status	Servings		Eatings	
	MWO-Owners	Non-Owners	MWO-Owners	Non-Owners
Raw	3 015	3 026	7 515	7 570
Convenience	2 669	2 548	5 289	5 120
Frozen	577	663	1 431	1 649
Subtotal	6 261	6 237	14 235	14 284
Other (II)	1 867	1 858	2 780	2 871
Total	8 128	8 095	17 015	17 155

Considering only the three main pre-preparation status groups	$\chi^2 = 8.75$, $p < 1\%$	df = 2	$\chi^2 = 18.00$, $p < 1\%$	
Considering the three main pre-preparation status groups and the "other" category	$\chi^2 = 8.67$, $p \simeq 4\%$	df = 3	$\chi^2 = 18.73$, $p < 1\%$	

MICROWAVE CANDIDATE FOODS (Report A)

Pre-Preparation Status	Servings		Eatings	
	MWO-Owners	Non-Owners	MWO-Owners	Non-Owners
Raw	2 213	2 085	5 426	5 180
Convenience	1 796	1 609	3 653	3 329
Frozen	301	259	746	686
Subtotal	4 310	3 953	9 825	9 195
Other (II)	1 313	1 451	1 838	2 106
Total	5 623	5 404	11 663	11 301

Considering only the three main pre-preparation status groups	$\chi^2 = 1.73$, $p \simeq 46\%$	df = 2	$\chi^2 = 2.39$, $p \simeq 30\%$	
Considering the three main pre-preparation status groups and the "other" category	$\chi^2 = 19.78$, $p < 1\%$	df = 3	$\chi^2 = 35.69$, $p < 1\%$	

Table 6. A list of major food groupings where the difference in Eatings or Servings between MWO-owners and non-owners was 5 percent or more.

Food Group	Percentage Difference	Source of Difference	Type of Household with the Larger Number of Eatings or Servings
All Foods (Report B)			
Fruits & Vegs.	6%	Eatings	non-owners
Hot Dishes	5%	Servings	non-owners
Baked Items	14%	Servings	owners
Baked Items	14%	Eatings	owners
Frozen	15%	Servings	non-owners
Frozen	15%	Eatings	non-owners
Microwave Candidate Foods (Report A)			
Liquids	7%	Servings	non-owners
Liquids	7%	Eatings	non-owners
Animal Protein	10%	Servings	owners
Animal Protein	8%	Eatings	owners
Hot Dishes	10%	Servings	owners
Hot Dishes	10%	Eatings	owners
Baked Items	23%	Servings	owners
Baked Items	19%	Eatings	owners
Raw	6%	Servings	owners
Convenience	12%	Servings	owners
Convenience	10%	Eatings	owners
Frozen	16%	Servings	owners
Frozen	9%	Eatings	owners

In the case of frozen foods (which accounted for less than 10 percent of all Servings or Eatings) non-owners prepared frozen foods on the "all foods" list more often, whereas owners favored prepared frozen foods on the "microwave candidate" list. This reversal in relative activity for microwave candidate foods is due in part to the way the candidate list was developed. A food could join this list only if one or more owners prepared the food at least once in a MWO. This selection procedure automatically biases the candidate list towards foods preferred by owners.

Based on data from the All Foods Report (Report B), Table 7 relates owner usage of MWO's relative to other cooking devices for the two sets of food groups. (In both cases, the "other" foods data were omitted.) Cooking device selection preferences are indicated by the ratio of foods prepared using other devices to foods prepared in an MWO. These ratios are found by dividing the number of non-MWO events by the corresponding number of MWO events for each food group. The ratios may be considered as the odds against preparation in an MWO, and when compared with the odds given on the Total lines the ratios indicate owners' preference for using an MWO to cook foods in each group. MWO's were used less frequently than the average for liquids and for convenience foods.

Task Displacement by MWO's:

Questions that arose well after the survey was committed concerned the degree to which MWO's in combined microwave/conventional ranges take over tasks from conventional cook tops and ovens, and whether there are new cooking tasks performed in households having a MWO. Although these questions cannot be answered directly from the survey data, an attempt was made to develop approximate answers.

The test procedure (4) contains two factors, K for conventional ovens and L for conventional cooking tops, which are defined as the estimated fractions of input energy consumption due to microwave oven usage. It should be noted that K and L refer to input energy, whereas the MRCA data refer to output services to the consumer. Specific data on quantities of foods prepared and eaten are not part of the MRCA data, nor are the cooking efficiencies of the devices involved. Hence, the ability to relate energy outputs to inputs is not as good as could be asked.

Table 7. Comparison of selection rates of MWO's and other devices for major food groups.

FOOD GROUPING METHOD I

	Servings					Eatings				
Food Group	M	XM	XM/M Ratio	MXM	Percent of MXM Total	M	XM	XM/M Ratio	MXM	Percent of MXM Total
Liquids	158	2 620	17	2 778	35.0	210	4 297	20	4 507	27.3
Animal Protein	202	1 047	5	1 249	15.7	418	2 632	6	3 050	18.4
Fruits & Vegs.	173	987	6	1 160	14.6	406	2 686	7	3 092	18.7
Hot Dishes	156	1 093	7	1 249	15.7	298	2 489	8	2 787	16.9
Baked Items	127	1 374	11	1 501	18.9	237	2 866	12	3 103	18.8
Total*	816	7 121	11.5	7 937	100.0	1 569	14 970	9.5	16 539	100.0
Considering the food group	χ^2(M, XM) = 149.5, p < 1% df = 4					χ^2(M, XM) = 250.4, p < 1% df = 4				

FOOD GROUPING METHOD II

	Servings					Eatings				
Food Group	M	XM	XM/M Ratio	MXM	Percent of MXM Total	M	XM	XM/M Ratio	MXM	Percent of MXM Total
Raw	396	2 619	7	3 015	48.2	811	6 704	8	7 515	52.8
Convenience	249	2 420	10	2 669	42.6	500	4 789	10	5 289	32.2
Frozen	94	483	5	577	9.2	180	1 251	7	1 431	10.0
Total*	739	5 522	7.5	6 261	100.0	1 491	12 744	9.5	14 235	100.0
Considering the food group	χ^2(M, XM) = 31.9, p < 1% df = 4					χ^2(M, XM) = 13.0, p < 1% df = 4				

M = Prepared using an MWO.
XM = Prepared not using an MWO.
MXM = M+XM

*"Other" categories were omitted.

The test procedure (4) also specifies annual useful cooking energy outputs for use in computing estimated annual operating costs. The energy outputs are given as 1 108 000 Btu's per year for conventional ranges and 1 054 000 Btu's per year for microwave/conventional ranges. The difference is based on a six-family survey by a manufacturer. With no MWO present, energy consumption was metered for two years to obtain baseline data. Then, after allowing three months for the households to become familiar with new counter top MWO's, energy consumption was metered for another nine months. Annualized average energy consumption was lower when the MWO's were in place. These data were converted to values of cooking energy output and corresponding K and L values.

Because such meter data were unavailable for the MRCA data, the problem of taking over cooking tasks was approached by assuming that each competing cooking device would lose tasks and energy input requirements to the MWO in the same proportion, and that the numbers of Eatings and Servings would remain unchanged when the MWO was introduced. On this basis, the data in Table 3 would apply, indicating that 10 percent of the total Servings and 9 percent of the total Eatings were taken over by the MWO from each of the other competing devices. Using Eatings as the suggested basis of displacement, both K and L in the test procedure (4) would be 0.91 instead of K = 0.82 and L = 0.85 in the current test procedure (4).

An alternate approach would be to identify the frequency that each non-MWO cooking device is normally used and to estimate MWO displacement by food group. In the absence of such data seven experienced cooks at NBS were asked to select cooking devices they would use to prepare meals from the Kitchen Range Test Menu developed in 1975 by the Association of Home Appliance Manufacturers (AHAM). (All seven happened to be non-owners.) For each dish on the AHAM menu that needs cooking or heating, each respondent identified from among cooking top, conventional oven and other non-MWO devices the cooking device normally used or that would be used. The data were compiled and the dishes allocated among the Liquids, Animal Protein, Fruits & Vegetables, Hot Dishes, and Baked Items food groups. The results are shown in Table 8.

Table 8. Device preferences by a sample of seven non-owner cooks for preparing the AHAM menu.

Food Group	Fraction Assigned to Cooking Top	Oven	Other Device
Liquids	0.95	0.00	0.05
Animal Protein	0.50	0.50	0.00
Fruits & Vegs.	1.00	0.00	0.00
Hot Dishes	0.80	0.20	0.00
Baked Items	0.20	0.70	0.10

The preferences in Table 8 were then applied to the data for all foods cooked by non-owners (Table 4), and to the owner data on non-MWO cooking in Table 9 on the basis that owners who elected not to use an MWO on a particular occasion would have device-selection preferences similar to non-owners for non-MWO cooking. The resulting allocations are shown in Table 9.

Table 9. Projected displacement of cooking tasks by MWO's (event counts rounded to nearest ten).

	Servings				Eatings			
Cooking Events	Cooking Top	Oven	Other Device	Total	Cooking Top	Oven	Other Device	Total
Non-owners	5 700	1 790	270	7 760	12 090	4 050	510	16 650
Owners, not in MWO	5 150	1 700	270	7 120	10 650	3 820	500	14 970
Difference (Frequency)	550	90	0	640	1 440	230	10	1 680
Percent Displacement*	9.6	5.0	0.0	8.2	11.9	5.7	2.0	10.1

*Percent displacement = (difference/non-owner cooking events) x 100.

Using rounded values of the percentages of Eatings displacement, K (for ovens) would be 0.94 and L (for cooking tops) would be 0.88. It should be noted that the MWO's in this survey were independent devices, whereas K and L apply to structurally combined devices.

The question of additional cooking tasks being stimulated by MWO ownership was addressed inconclusively. Referring to the All Foods portion of Table 1, MWO owners reported 33 more Servings than non-owners (8128-8095=33, a 0.4 percent difference) and 140 fewer Eatings (17 015-17 155=-140, a 0.8 percent difference) than non-owners. It is not recommended that any important conclusions be based on these differences.

Demographic Analyses:

Demographic data at the All Foods level are provided in Appendix C. The title page of Report A lists all demographic arrangements of the data reported by MRCA. Corresponding data for All Foods were provided by the contractor in their Report B.

The data for Household Income, Household Size and Seasonal Totals were selected for analysis as being of potential interest for present DOE impact analysis programs. The data given in Table 10 are derived from Appendix C by dividing the event counts by the particular numbers of households involved, yielding average events per household over a 14-day period. Caution against undue refinement is advised in interpreting these data because unusual behavior by one or two households could distort results, especially for some of the less populous cells. The data were examined for either the presence or absence of a systematic relationship with respect to the independent factor, since an indication either way may be useful in planning later work.

Income level:

No systematic variation of Servings as a function of income group is apparent unless the generally lower figures for the top income group might indicate more eating away from home. Eatings rise with income, showing little variation from the $10 000 to $25 000 income levels, and then a decline above $25 000.

Household Size:

Servings, Eatings and Eatings per Serving are smallest for one-person households. Servings rise slowly with increasing household size. Eatings rise in almost direct proportion to household size.

Table 10. Total Servings and Eatings per household (HH), all foods, by HH income, HH size and season.*

	Households in Sample		Servings				Eatings			
	MWO-Owners	Non-Owners	Cooked in MWO	Not Cooked in MWO	Total for MWO Households	Non-MWO Households	Cooked in MWO	Not Cooked in MWO	Total for MWO Households	Non-MWO Households
Income:										
Under $ 4 000	10	6	12.4	64.7	77.1	91.2	17.4	91.4	108.8	115.8
4 000-6 999	13	17	5.2	71.0	76.2	76.1	8.3	137.4	145.7	131.0
7 000-9 999	13	17	10.2	74.0	84.2	88.2	18.4	147.1	165.5	169.8
10 000-14 999	22	23	8.1	87.5	95.6	83.9	17.2	206.0	223.2	196.3
15 000-24 999	30	27	9.0	77.2	86.2	87.0	19.2	171.2	190.5	209.2
25 000+ over	8	6	7.8	65.1	72.9	79.5	15.0	142.1	157.1	197.3
Overall	96	96	8.7	76.0	84.7	84.3	16.6	160.6	177.2	178.7
HH Size, Persons:										
1	21	17	6.4	53.2	59.6	71.2	6.5	58.9	65.4	78.8
2	32	33	7.8	69.7	77.6	78.2	12.1	121.4	133.5	137.6
3-4	32	37	11.8	95.3	107.1	89.2	26.1	221.2	247.2	214.3
5 + up	11	9	6.6	81.3	87.9	111.8	21.8	292.6	314.5	373.6
Overall	96	96	8.7	76.0	84.7	84.3	16.6	160.6	177.2	178.7
Season:										
JAN-MAR	27	24	10.2	83.3	93.5	83.6	19.7	166.4	186.2	193.8
APR-JUN	24	26	6.5	75.3	81.8	78.6	12.7	173.7	186.4	157.4
JUL-SEP	26	17	7.2	70.5	77.7	66.2	15.4	151.3	160.7	118.9
OCT-DEC	19	29	11.4	73.9	85.3	100.7	18.8	148.6	167.4	220.3
Overall	96	96	8.7	76.0	84.7	84.3	16.6	160.6	177.2	178.7

*Entries for S and E are HH averages for 14 days.

Season:

The cooking and the eating of cooked foods is least for both owners and non-owners during the summer months. Owners and non-owners did not display any consistent pattern for Eatings and Servings in the other seasons.

DISCUSSION

As described in Tables 1 and 2, MWO-owners behaved about the same as non-owners with respect to the total numbers of Eatings and Servings they cook or heat. Leftovers were eaten as often in both types of households. Considering overall frequencies of use, owners used MWO's proportionately more often than other devices when preparing leftovers.

Owners of MWO's rarely used their MWO's exclusively for preparing a given type of food. Instead, for most foods (approximately 90 percent of all Eatings and Servings), non-MWO cooking devices were selected. Several foods were prepared in MWO's fewer than ten times by the entire group of 96 MWO households, suggesting some amount of experimenting with MWO's.

Overall, only 10 percent of the cooked or heated food eaten in a MWO-household was prepared in an MWO. Roughly 10 percent of all household cooking tasks were displaced from conventional devices by MWO's.

One-third of all food types cooked or heated in a MWO-household were never prepared in a MWO by any of the 96 households. MWO's supplemented but did not replace conventional ranges and other cooking devices.

Manufacturers and MWO cookbooks have emphasized the wide variety of foods that can be acceptably prepared in MWO's, but actual usage rates in this survey did not approach these potentials.

The results of the survey reported here do not support the hypothesis that MWO owners cook or eat less than non-owners, nor is there evidence of an important difference in food selection between owners and non-owners. The more supportable hypothesis is that food quantities and types are the same for owners and non-owners and, lacking positive evidence to the contrary, that average annual cooking energy

output requirements are also about the same. Energy input requirements may differ, however, depending on the relative efficiencies and usages of the various cooking devices.

It is emphasized that the data used in this report were collected in 1975 and hence involved MWO's with model years no later than 1975. MWO's have undergone considerable refinement since then and their usage may (or may not) be changing, as well. Replication of the MRCA survey for a later year would be informative on this point.

REFERENCES

1. Public Law 94-163, Energy Policy and Conservation Act, December 22, 1975.

2. Public Law 94-385, Energy Conservation and Production Act, August 14, 1976.

3. Hoel, Paul G., Elementary Statistics, John Wiley & Sons, Inc., New York, 1966.

4. Department of Energy, Final Energy Conservation Test Procedures; Conventional Ranges, Cooking Tops, Ovens Microwave Ovens, Microwave/Conventional Ranges, Furnaces and Vented and Unvented Home Heating Equipment, Federal Register, Vol. 43, No. 91, May 10, 1978.

APPENDIX A. DEMOGRAPHIC CHARACTERISTICS AND COMPARISONS OF THE SAMPLED HOUSEHOLDS

Table A1. Selected characteristics for the U.S. population and the sample of 2000 households used for the Fifth MRCA Menu Census.

Demographic Characteristic (As per MRCA criteria)	U.S. Census Households	Fifth Menu Census Sample
	Percent	Percent
Census Region		
Northeast	24.3	24.7
North Central	27.6	27.4
South	30.7	30.3
West	17.4	17.6
Metro Area Size		
Farm	4.1	5.4
Under 2 000	11.7	11.0
2 500- 49 999	10.8	11.7
50 000-249 999	7.8	8.0
250 000-499 999	10.2	9.7
500 000-999 999	12.7	12.1
Over 1 million	42.7	42.1
Household Income		
Under $4 000	17.5	14.1
$ 4 000-$ 6 999	15.4	17.1
$ 7 000-$ 9 999	14.6	15.8
$10 000-$14 999	22.6	22.8
$15 000-$24 999	22.1	23.7
Over $25 000	7.8	6.5
Head-of-Household Education		
Under 9 years	23.4	16.7
9-12 years	48.4	45.5
Over 12 years	28.2	37.8
Housewife		
Employed	35.0	36.9
Not employed	65.0	63.1

Table A1. Selected characteristics for the U.S. population and the sample of 2000 households used for the Fifth MRCA Menu Census. (continued)

Demographic Characteristic (As per MRCA criteria)	U.S. Census Households	Fifth Menu Census Sample
	Percent	Percent
Household Size		
1 person	19.1	18.7
2 persons	30.8	31.4
3-4 persons	32.6	32.4
5 or more persons	17.5	17.5
Head of Household Occupation		
White collar	32.5	38.4
Blue collar	35.1	32.0
Farmer	2.8	2.7
Not a worker	29.6	26.9
Number of Children		
None	55.3	55.2
Under 6 years	10.7	9.8
6-12 years only	7.0	7.4
13-17 years only	8.8	8.5
Under 6, & 6-12	6.8	8.2
Under 6, & 13-17	1.0	8.2
6-12, & 13-17	8.3	0.4
All 3 ages	2.1	1.7
Race		
White	88.7	91.9
Non-white	11.3	8.1

Table A1. Selected characteristics for the U.S. population and the sample of 2000 households used for the Fifth MRCA Menu Census. (continued)

Demographic Characteristic (As per MRCA criteria)	U.S. Census Households	Fifth Menu Census Sample
	Percent	Percent
Persons by Age & Sex		
Under 2 Years		
Male	2.0	1.2
Female	1.9	1.3
2-5 Years		
Male	3.6	3.7
Female	3.4	3.2
6-12 Years		
Male	6.2	7.3
Female	5.9	6.8
13-17 Years		
Male	4.9	5.0
Female	4.8	4.9
18-24 Years		
Male	6.4	4.2
Female	6.2	4.3
25-44 Years		
Male	12.3	12.4
Female	12.5	13.5
45-54 Years		
Male	5.2	5.1
Female	5.6	6.3
55-64 Years		
Male	4.3	3.8
Female	4.9	5.3
65 & Older		
Male	4.1	4.2
Female	5.8	7.5
Total Males	49.0	46.9
Total Females	51.0	53.1

Table A2. Comparison of MWO and non-MWO households on the basis of demographic characteristics.

Demographic Characteristic (As per MRCA criteria)	Households Owning Microwave Ovens				Households Not Owning Microwave Ovens			
	Households in Sample		Persons in Sample		Households in Sample		Persons in Sample	
	Number	%	Number	%	Number	%	Number	%
Total Households	96	100.0	260	100.0	96	100.0	260	100.0
Census Region								
Northeast	15	15.6	46	17.7	15	15.6	46	17.7
North Central	32	33.3	89	34.2	32	33.3	91	35.0
South	29	30.2	82	31.5	29	30.2	78	30.0
West	20	20.8	43	16.5	20	20.8	45	17.3
Metro Area Size								
Farm	3	3.1	13	5.0	4	4.2	14	5.4
Under 2 500	9	9.4	27	10.4	7	7.3	23	8.8
2 500- 49 999	13	13.5	38	14.6	13	13.5	35	13.5
50 000-249 999	4	4.2	12	4.6	4	4.2	12	4.6
250 000-499 999	10	10.4	28	10.8	11	11.5	30	11.5
500 000-999 999	9	9.4	19	7.3	10	10.4	22	8.5
Over 1 million	48	50.0	123	47.3	47	49.0	124	47.7
Household Income								
Under $4 000	10	10.4	14	5.4	6	6.3	8	3.1
$ 4 000-$ 6 999	13	13.5	25	9.6	17	17.7	37	14.2
$ 7 000-$ 9 999	13	13.5	39	15.0	17	17.7	41	15.8
$10 000-$14 999	22	22.9	69	26.5	23	24.0	67	25.8
$15 000-$24 999	30	31.3	91	35.0	27	28.1	84	32.3
Over $25 000	8	8.3	22	8.5	6	6.3	23	8.8
Head-of-Household Education								
Under 9 years	8	8.3	16	6.2	13	13.5	31	11.9
9-12 years	43	44.8	117	45.0	37	38.5	97	37.3
Over 12 years	45	46.9	127	48.8	46	47.9	132	50.8
Housewife								
Employed	47	49.0	114	43.8	47	49.0	114	43.8
Not employed	49	51.0	146	56.2	49	51.0	146	56.2
Household Size								
1 person	21	21.9	21	8.1	17	17.7	17	6.5
2 persons	32	33.3	64	24.6	33	34.4	66	25.4
3-4 persons	32	33.3	114	43.8	37	38.5	129	49.6
5 or more persons	11	11.5	61	23.5	9	9.4	48	18.5

Table A2. Comparison of MWO and non-MWO households on the basis of demographic characteristics. (continued)

Demographic Characteristic (As per MRCA criteria)	Households Owning Microwave Ovens				Households Not Owning Microwave Ovens			
	Households in Sample		Persons in Sample		Households in Sample		Persons in Sample	
	Number	%	Number	%	Number	%	Number	%
Head of Household Occupation								
White collar	47	49.0	126	48.5	45	46.9	124	47.7
Blue collar	29	30.2	98	37.7	31	32.3	98	37.7
Farmer	--	--	--	--	2	2.1	8	3.1
Not a worker	20	20.8	36	13.8	18	18.8	30	11.5
Number of Children								
None	57	59.4	98	37.7	56	58.3	101	38.8
Under 6 years	8	8.3	29	11.2	14	14.6	48	18.5
6-12 years only	8	8.3	36	13.8	5	5.2	18	6.9
13-17 years only	11	11.5	39	15.0	7	7.3	26	10.0
Under 6, & 6-12	6	6.3	29	11.2	10	10.4	45	17.3
Under 6, & 13-17	--	--	--	--	--	--	--	--
6-12, & 13-17	5	5.2	23	8.8	4	4.2	22	8.5
All 3 ages	1	1.0	6	2.3	--	--	--	--
Race								
White	90	93.8	244	93.8	90	93.8	243	93.5
Non-white	6	6.3	16	6.2	6	6.3	17	6.5
Season of Diary Submittal								
Jan-Mar 1975	27	28.1	70	26.9	24	25.0	73	28.1
Apr-Jun 1975	24	25.0	71	27.3	26	27.1	65	25.0
Jul-Sep 1975	26	27.1	66	25.4	17	17.7	41	15.8
Oct-Dec 1975	19	19.8	53	20.4	29	30.2	81	31.2
Religion								
Protestant	36	37.5	88	33.8	32	33.3	89	34.2
Catholic	11	11.5	36	13.8	13	13.5	39	15.0
Jewish	4	4.2	17	6.5	2	2.1	6	2.3
Other	--	--	--	--	2	2.1	3	1.2
None	--	--	--	--	1	1.0	1	0.4
Economic Class								
High	25	26.0	79	30.4	24	25.0	81	31.2
Upper middle	30	31.3	91	35.0	21	21.9	60	23.1
Lower middle	16	16.7	45	17.3	28	29.2	74	28.5
Low	25	26.0	45	17.3	23	24.0	45	17.3
Household Head								
Male, spouse present	70	72.9	226	86.9	72	75.0	221	85.0
Male, no spouse	1	1.0	1	0.4	--	--	--	--
Female, no spouse	25	26.9	33	12.7	24	25.0	39	15.0

Table A2. Comparison of MWO and non-MWO households on the basis of demographic characteristics. (continued)

Demographic Characteristic (As per MRCA criteria)	Households Owning Microwave Ovens				Households Not Owning Microwave Ovens			
	Households in Sample		Persons in Sample		Households in Sample		Persons in Sample	
	Number	%	Number	%	Number	%	Number	%
Persons by Age & Sex								
Under 2 Years								
Male	2	2.1	2	0.8	3	3.1	3	1.2
Female	3	3.1	3	1.2	6	6.3	6	2.3
2-5 Years								
Male	9	9.4	9	3.5	11	11.5	13	5.0
Female	7	7.3	7	2.7	11	11.5	11	4.2
6-12 Years								
Male	15	15.6	21	8.1	12	12.5	12	4.6
Female	14	14.6	17	6.5	12	12.5	15	5.8
13-17 Years								
Male	8	8.3	8	3.1	5	5.2	5	1.9
Female	15	15.6	16	6.2	11	11.5	16	6.2
18-24 Years								
Male	11	11.5	11	4.2	7	7.3	7	2.7
Female	11	11.5	11	4.2	7	7.3	7	2.7
25-44 Years								
Male	38	39.6	38	14.6	41	42.7	41	15.8
Female	40	41.7	40	15.4	47	49.0	48	18.5
45-54 Years								
Male	10	10.4	10	3.8	9	9.4	9	3.5
Female	18	18.8	18	6.9	15	15.6	15	5.8
55-64 Years								
Male	11	11.5	11	4.2	12	12.5	12	4.6
Female	14	14.6	14	5.4	14	14.6	14	5.4
65 & Older								
Male	9	9.4	9	3.5	10	10.4	10	3.8
Female	15	15.6	15	5.8	16	18.7	16	6.2
Total Males	75	78.1	119	45.8	77	80.2	112	43.1
Total Females	95	99.0	141	54.2	96	100.0	148	56.9

Table A2. Comparison of MWO and non-MWO households on the basis of demographic characteristics. (continued)

Demographic Characteristic (As per MRCA criteria)	Households Owning Microwave Ovens				Households Not Owning Microwave Ovens			
	Households in Sample		Persons in Sample		Households in Sample		Persons in Sample	
	Number	%	Number	%	Number	%	Number	%
Persons on Diet by Age & Sex								
Under 18 Years								
On diet								
Male	--	--	--	--	--	--	--	--
Female	9	9.4	9	3.5	7	7.3	9	3.5
No diet								
Male	30	31.3	40	15.4	24	25.0	33	12.7
Female	28	29.2	34	13.1	26	27.1	39	15.0
18 & Over Losing								
Male	12	12.5	12	4.6	12	12.5	13	5.0
Female	30	31.3	31	11.9	23	34.4	34	13.1
18 & Over Watching								
Male	3	3.1	4	1.5	1	1.0	2	0.8
Female	6	6.3	6	2.3	9	9.4	9	3.5
18 & Over Gaining								
Male	1	1.0	1	0.4	--	--	--	--
Female	--	--	--	--	1	1.0	1	0.4
18 & Over Medical/ Health								
Male	11	11.5	11	4.2	7	7.3	7	2.7
Female	13	13.5	13	5.0	11	11.5	11	4.2
18 & Over None								
Male	50	52.1	51	19.6	55	57.3	57	21.9
Female	48	50.0	48	18.5	45	46.9	45	17.3
Total								
Male	75	78.1	119	45.8	77	80.2	112	43.1
Female	95	99.0	141	54.2	96	100.0	148	56.9

APPENDIX B. CONTINGENCY TABLES

Contingency tables are arrays of numbers that subdivide some total number of events into cells that indicate the observed numbers of events, say Servings or Eatings, having combinations of properties or attributes. These properties range over all possibilities within each classification system. For example, MWO-owners and non-owners would define all possibilities with respect to the MWO ownership attribute. Household size and food type are examples of other attribute systems useful in categorizing the same events. The analyses in this report are limited to "two-way" tables, meaning that the events are allocated according to only two attribute systems in each case. Higher order tables (three-way, four-way, etc.) are possible, with the analysis principles remaining the same.

Contingency analysis is a formal method to test for the presence or absence of association (not causation) among the attribute systems. The findings provide guidance on the rejection or acceptance of the "null hypothesis," H_o, meaning that the attribute systems do, or do not, display association. For example, do owners eat disproportionately more leftovers than non-owners? The data in the following table were taken from Table 1.

Eatings	MWO Owners	Non-Owners	Row Totals
First Time	15 507 (15 501)	15 623 (15 629)	31 130 (31 130)
Leftovers	1 508 (1 514)	1 532 (1 526)	3 040 (3 040)
Column Totals	17 015 (17 015)	17 155 (17 155)	34 170 (34 170)

$\chi^2 = 0.048$, $p \simeq 83\%$, 1 degree of freedom (df)
(χ^2 calculated without rounding of expected values)

The upper numbers in each pair in the table are the actual observations. The lower numbers, in parentheses, are the values that would be "expected" if one only knew the row and column totals and assumed that there was no association between the two attribute systems. The Chi-square (χ^2) statistic is determined by

$$\chi^2 = \sum_{\substack{\text{Row, Columns} \\ (i,j)}} \frac{(\text{Expected}_{i,j} - \text{Observed}_{i,j})^2}{\text{Expected}_{i,j}} = 0.048.$$

The number of degrees of freedom (df) is the number of values in the table that could be varied independently, while holding the row and column totals fixed. Not counting these totals, only one of the other values may be varied in this sense, and having chosen a value, the other entries are determined. Hence, df = 1.

Reference to a table of χ^2 statistics shows that differences between expected and observed results at least as large as this could have occurred roughly 83 percent of the times such an experiment was run, when there is really no difference in the populations from which these samples originated. While the investigator must decide for himself, based on the consequences of being wrong, it appears advisable in this case to accept the null hypothesis--there is no association between attributes under consideration. That is, there is no statistically supportable difference between owners and non-owners with respect to the proportions of first time and leftover eatings.

APPENDIX C. HOUSEHOLD AND MEAL CHARACTERISTIC PROFILES FOR MWO-OWNERS AND NON-OWNERS

FIFTH NATIONAL HOUSEHOLD MENU CENSUS

JANUARY THRU DECEMBER 1975

-- ANNUAL SUMMARY --

REPORT TO

NATIONAL BUREAU OF STANDARDS*

INDEX

REPORT - A - FOODS

*Data summaries only for report I.D. numbers 7303-01, -11, and -21 are included in this report.

**"Conv. Oven" should read "Not in MWO."

Headnotes for Tables C-1, C-2, C-3 and C-4.

$$\text{Index Times Served} = 100 \times \frac{\text{Total HH}}{\text{Total Servings}} \times \frac{\text{Serving}}{\text{HH's Serving}}$$

$$\text{Index No. of Eatings} = 100 \times \frac{\text{Total HH}}{\text{Total Eatings}} \times \frac{\text{Eatings}}{\text{HH Serving}}$$

or, where appropriate,

$$= 100 \times \frac{\text{Total Eaters}}{\text{Total Eatings}} \times \frac{\text{Eatings}}{\text{Eater Sample Size}}$$

C.M. = Carried Meals (e.g., bag lunches prepared at home)
DK = Don't know

Table C-1. Owner household and meal characteristics for foods cooked or heated in MWO's.

REPORT TO N.H.S. | PERIOD MC-5 JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PATRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO.OF EATGS
TOTAL SAMPLE HOUSEHOLDS	96	100.0	96	100.0	100.0	100.0	835	8.7	100.0	100.0	1,597	100.0	100.0
CENSUS REGION													
NEW ENGLAND	3	3.1	3	100.0	3.1	100.0	16	5.3	1.9	61.3	22	1.4	44.1
MID ATLANTIC	12	12.5	12	100.0	12.5	100.0	66	5.5	7.9	63.2	129	8.1	64.6
TOTAL NORTH EAST	15	15.6	15	100.0	15.6	100.0	82	5.5	9.8	62.9	151	9.5	60.5
WEST NORTH CENTRAL	15	15.6	15	100.0	15.6	100.0	139	9.3	16.6	106.5	285	17.8	114.2
EAST NORTH CENTRAL	17	17.7	17	100.0	17.7	100.0	71	4.2	8.5	48.0	133	8.3	47.0
TOTAL NORTH CENTRAL	32	33.3	32	100.0	33.3	100.0	210	6.6	25.1	75.4	418	26.2	78.5
WEST SOUTH CENTRAL	8	8.3	8	100.0	8.3	100.0	74	9.3	8.9	106.3	134	8.4	100.7
EAST SOUTH CENTRAL	5	5.2	5	100.0	5.2	100.0	70	14.0	8.4	161.0	175	11.0	210.4
SOUTH ATLANTIC	16	16.7	16	100.0	16.7	100.0	153	9.6	18.3	109.9	269	16.8	101.1
TOTAL SOUTH	29	30.2	29	100.0	30.2	100.0	297	10.2	35.6	117.7	578	36.2	119.8
PACIFIC	19	19.8	19	100.0	19.8	100.0	238	12.5	28.5	144.0	435	27.2	137.6
MOUNTAIN	1	1.0	1	100.0	1.0	100.0	8	8.0	1.0	92.0	15	.9	90.2
TOTAL WEST	20	20.8	20	100.0	20.8	100.0	246	12.3	29.5	141.4	450	28.2	135.3
METRO AREA SIZE													
FARM	3	3.1	3	100.0	3.1	100.0	4	1.3	.5	15.3	13	.8	26.0
UNDER 2,500	9	9.4	9	100.0	9.4	100.0	140	15.6	16.8	178.8	288	18.0	192.4
2,500-49,999	13	13.5	13	100.0	13.5	100.0	94	7.2	11.3	83.1	161	10.1	74.4
50,000-249,999	4	4.2	4	100.0	4.2	100.0	24	6.0	2.9	69.0	95	5.9	142.8
250,000-499,999	10	10.4	10	100.0	10.4	100.0	59	5.9	7.1	67.8	91	5.7	54.7
500,000-999,999	9	9.4	9	100.0	9.4	100.0	107	11.9	12.8	136.7	180	11.3	120.2
1 MIL. & OVER	48	50.0	48	100.0	50.0	100.0	407	8.5	48.7	97.5	769	48.2	96.3
HOUSEHOLD INCOME													
UNDER $4,000	10	10.4	10	100.0	10.4	100.0	124	12.4	14.9	142.6	174	10.9	104.6
$4,000-$6,999	13	13.5	13	100.0	13.5	100.0	67	5.2	8.0	59.3	108	6.8	49.9
$7,000-$9,999	13	13.5	13	100.0	13.5	100.0	132	10.2	15.8	116.7	239	15.0	110.5
$10,000-$14,999	22	22.9	22	100.0	22.9	100.0	179	8.1	21.4	93.5	379	23.7	103.6
$15,000-$24,999	30	31.3	30	100.0	31.3	100.0	271	9.0	32.5	103.9	577	36.1	115.6
$25,000 & OVER	8	8.3	8	100.0	8.3	100.0	62	7.8	7.4	89.1	120	7.5	90.2
EDUCATION-HEAD													
UNDER 9TH GRADE	8	8.3	8	100.0	8.3	100.0	103	12.9	12.3	148.0	182	11.4	136.8
9TH-12TH GRADE	43	44.8	43	100.0	44.8	100.0	295	6.9	35.3	78.9	508	31.8	71.0
13 YRS. & OVER	45	46.9	45	100.0	46.9	100.0	437	9.7	52.3	111.6	907	56.8	121.2
HSHF. EMPLOYMENT													
EMPLOYED	47	49.0	47	100.0	49.0	100.0	365	7.8	43.7	89.3	671	42.0	85.8
NOT EMPLOYED	49	51.0	49	100.0	51.0	100.0	470	9.6	56.3	110.3	926	58.0	113.6

Table C-1. Owner household and meal characteristics for foods cooked or heated in MWO's. (continued)

REPORT TO N.S.S. | PERIOD MC-5 JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO.OF EATGS
OCCUPATION-HEAD													
WHITE-COLLAR	47	49.0	47	100.0	49.0	100.0	442	9.4	52.9	108.1	825	51.7	105.5
BLUE-COLLAR	29	30.2	29	100.0	30.2	100.0	198	6.8	23.7	78.5	455	28.5	94.3
FARMER	-	-	-	-	-	-	-	-	-	-	-	-	-
NOT A WORKER	20	20.8	20	100.0	20.8	100.0	195	9.8	23.4	112.1	317	19.8	95.3
HOUSEHOLD SIZE													
1 PERSON	21	21.9	21	100.0	21.9	100.0	135	6.4	16.2	73.9	136	8.5	38.9
2 PERSONS	32	33.3	32	100.0	33.3	100.0	251	7.8	30.1	90.2	387	24.2	72.7
3-4 PERSONS	32	33.3	32	100.0	33.3	100.0	376	11.8	45.0	135.1	834	52.2	156.7
5 OR MORE	11	11.5	11	100.0	11.5	100.0	73	6.6	8.7	76.3	240	15.0	131.2
PRESENCE OF CHILDREN													
NONE	57	59.4	57	100.0	59.4	100.0	395	6.9	47.3	79.7	570	35.7	60.1
UNDER 6 YEARS	8	8.3	8	100.0	8.3	100.0	63	7.9	7.5	90.5	77	4.8	57.9
6-12 YEARS	8	8.3	8	100.0	8.3	100.0	128	16.0	15.3	184.0	334	20.9	251.0
13-17 YEARS	11	11.5	11	100.0	11.5	100.0	159	14.5	19.0	166.2	391	24.5	213.7
UNDER 6 & 6-12	6	6.3	6	100.0	6.3	100.0	80	13.3	9.6	153.3	195	12.2	195.4
UNDER 6 & 13-17	-	-	-	-	-	-	-	-	-	-	-	-	-
6-12 & 13-17	5	5.2	5	100.0	5.2	100.0	9	1.8	1.1	20.7	24	1.5	28.9
ALL THREE AGES	1	1.0	1	100.0	1.0	100.0	1	1.0	.1	11.5	6	.4	36.1
AGE OF HOUSEWIFE													
UNDER 25 YEARS	8	8.3	8	100.0	8.3	100.0	73	9.1	8.7	104.9	77	4.8	57.9
25-34 YEARS	26	27.1	26	100.0	27.1	100.0	210	8.1	25.1	92.9	437	27.4	101.0
35-44 YEARS	16	16.7	16	100.0	16.7	100.0	215	13.4	25.7	154.5	556	34.8	208.9
45-54 YEARS	18	18.8	18	100.0	18.8	100.0	132	7.3	15.8	84.3	218	13.7	72.8
55-64 YEARS	14	14.6	14	100.0	14.6	100.0	104	7.4	12.5	85.4	172	10.8	73.9
65 YEARS & OVER	14	14.6	14	100.0	14.6	100.0	101	7.2	12.1	82.9	137	8.6	58.8
RACE													
WHITE	90	93.8	90	100.0	93.8	100.0	772	8.6	92.5	98.6	1,503	94.1	100.4
NON WHITE	6	6.3	6	100.0	6.3	100.0	63	10.5	7.5	120.7	94	5.9	94.2
SEASONAL TOTALS													
JAN-MARCH 1975	27	28.1	27	100.0	28.1	100.0	275	10.2	32.9	117.1	533	33.4	118.7
APRIL-JUNE 1975	24	25.0	24	100.0	25.0	100.0	157	6.5	18.8	75.2	305	19.1	76.4
JULY-SEPT 1975	26	27.1	26	100.0	27.1	100.0	187	7.2	22.4	82.7	401	25.1	92.7
OCT-DEC 1975	19	19.8	19	100.0	19.8	100.0	216	11.4	25.9	130.7	358	22.4	113.3
DISH TYPE DISTRIBUTION													
BASE DISH	-	-	95	-	99.0	-	730	7.7	87.4	-	1,399	87.6	-
ADDITIVE	-	-	38	-	39.6	-	105	2.8	12.6	-	198	12.4	-
BASE & ADDITIVE	-	-	96	-	100.0	-	835	8.7	100.0	-	1,597	100.0	-
COMPONENT	-	-	-	-	-	-	-	-	-	-	-	-	-
INGREDIENT	-	-	-	-	-	-	-	-	-	-	-	-	-
AGENT	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C-1. Owner household and meal characteristics for foods cooked or heated in MWO's. (continued)

REPORT TC N.B.S. | PERIOD MC-5 JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO.OF EATGS
TOTAL SAMPLE MEALS	-	-	96	100.0	100.0	-	835	8.7	100.0	-	1,597	100.0	-
DAY OF WEEK													
SUNDAY	-	-	38	39.6	39.6	-	119	3.1	14.3	-	253	15.8	-
MONDAY-THURSDAY	-	-	84	87.5	87.5	-	525	6.3	62.9	-	977	61.2	-
FRIDAY	-	-	45	46.9	46.9	-	104	2.3	12.5	-	164	10.3	-
SATURDAY	-	-	39	40.6	40.6	-	87	2.2	10.4	-	203	12.7	-
MEAL IDENTITY													
MORNING MEAL	-	-	29	30.2	30.2	-	143	4.9	17.1	-	235	14.7	-
MIDDAY MEAL	-	-	39	40.6	40.6	-	131	3.4	15.7	-	286	17.9	-
EVENING MEAL	-	-	53	55.2	55.2	-	318	6.0	38.1	-	798	50.0	-
MORNING SNACK	-	-	6	6.3	6.3	-	6	1.0	.7	-	6	.4	-
AFTERNOON SNACK	-	-	7	7.3	7.3	-	15	2.1	1.8	-	22	1.4	-
EVE/BED T SNACK	-	-	14	14.6	14.6	-	37	2.6	4.4	-	62	3.9	-
CARRIED MEALS	-	-	35	36.5	36.5	-	185	5.3	22.2	-	188	11.8	-
GUESTS PRESENT													
NONE	-	-	92	95.8	95.8	-	794	8.6	95.1	-	1,419	88.9	-
UNDER 13 YRS ONLY	-	-	4	4.2	4.2	-	4	1.0	.5	-	15	.9	-
13 YRS & OVER ONLY	-	-	12	12.5	12.5	-	32	2.7	3.8	-	118	7.4	-
BOTH AGE GROUPS	-	-	4	4.2	4.2	-	5	1.3	.6	-	45	2.8	-
PLACE EATEN													
KITCHEN	-	-	48	50.0	50.0	-	371	7.7	44.4	-	790	49.5	-
DINING ROOM	-	-	23	24.0	24.0	-	156	6.8	18.7	-	407	25.5	-
OTHER-INDOORS	-	-	13	13.5	13.5	-	59	4.5	7.1	-	107	6.7	-
OUTDOORS	-	-	1	1.0	1.0	-	1	1.0	.1	-	1	.1	-
SNACK,C.M.,DK	-	-	50	52.1	52.1	-	248	5.0	29.7	-	292	18.3	-
DISH POSITION													
MAIN DISH	-	-	59	61.5	61.5	-	337	5.7	40.4	-	748	46.8	-
DESSERT	-	-	7	7.3	7.3	-	9	1.3	1.1	-	16	1.0	-
SIDE DISH,OTHER	-	-	39	40.6	40.6	-	246	6.3	29.5	-	555	34.8	-
SNACKS & C.M.	-	-	49	51.0	51.0	-	243	5.0	29.1	-	278	17.4	-
GUESTS EATING													
UNDER 13 YRS	-										14		
13 YRS & OVER	-										44		

Table C-1. Owner household and meal characteristics for foods cooked or heated in MWO's. (continued)

REPORT TO N.H.S. — PERIOD MC-5. JANUARY-DECEMBER 1975

PERSON - EATER CHARACTERISTIC PROFILES	MEMBRS IN SAMPLE	DIVISN OF SMPL MEMBRS	NUMBER OF NET EATERS	PERCNT EATER PNTRTN	% TOT NET EATERS	INDEX NET EATERS	NUMBER OF EATNGS	TIMES PER EATER	% OF TOTAL EATGS	INDEX NO.OF EATGS
TOTAL SAMPLE MEMBERS	260	100.0	209	80.4	100.0	100.0	1,522	7.3	100.0	100.0
AGE-SEX OF MEMBERS										
MALE MEMBERS-TOTAL	119	45.8	98	82.4	46.9	102.4	736	7.5	48.4	105.7
UNDER 2 YEARS	2	.8	1	50.0	.5	62.2	3	3.0	.2	25.6
2-5 YEARS	9	3.5	5	55.6	2.4	69.1	29	5.8	1.9	55.0
6-12 YEARS	21	8.1	16	76.2	7.7	94.8	141	8.8	9.3	114.7
13-17 YEARS	8	3.1	6	75.0	2.9	93.3	71	11.8	4.7	151.6
18-24 YEARS	11	4.2	9	81.8	4.3	101.8	48	5.3	3.2	74.5
25-44 YEARS	38	14.6	35	92.1	16.7	114.6	246	7.0	16.2	110.6
45-54 YEARS	10	3.8	8	80.0	3.8	99.5	90	11.3	5.9	153.7
55 64 YEARS	11	4.2	10	90.9	4.8	113.1	30	3.0	2.0	46.6
65 YEARS & OVER	9	3.5	8	88.9	3.8	110.6	78	9.8	5.1	148.1
FEMALE MEMBER-TOTAL	141	54.2	111	78.7	53.1	97.9	786	7.1	51.6	95.2
UNDER 2 YEARS	3	1.2	1	33.3	.5	41.5	5	5.0	.3	28.5
2-5 YEARS	7	2.7	5	71.4	2.4	88.9	30	6.0	2.0	73.2
6-12 YEARS	17	6.5	10	58.8	4.8	73.2	55	5.5	3.6	55.3
13-17 YEARS	16	6.2	12	75.0	5.7	93.3	64	5.3	4.2	68.3
18-24 YEARS	11	4.2	9	81.8	4.3	101.8	72	8.0	4.7	111.8
25-44 YEARS	40	15.4	34	85.0	16.3	105.7	268	7.9	17.6	114.5
45-54 YEARS	18	6.9	11	61.1	5.3	76.0	90	8.2	5.9	85.4
55-64 YEARS	14	5.4	14	100.0	6.7	124.4	100	7.1	6.6	122.0
65 YEARS & OVER	15	5.8	15	100.0	7.2	124.4	102	6.8	6.7	116.2
DIET STATUS-MEMBERS										
MALE UNDER 18 YRS	40	15.4	28	70.0	13.4	87.1	244	8.7	16.0	104.2
ON DIET	-	-	-	-	-	-	-	-	-	-
NO DIET	40	15.4	28	70.0	13.4	87.1	244	8.7	16.0	104.2
MALE 18 AND OLDER	79	30.4	70	88.6	33.5	110.2	492	7.0	32.3	106.4
LOSING	12	4.6	9	75.0	4.3	93.3	80	8.9	5.3	113.9
WATCHING	4	1.5	4	100.0	1.9	124.4	7	1.8	.5	29.9
GAINING	1	.4	1	100.0	.5	124.4	1	1.0	.1	17.1
MEDICAL/HEALTH	11	4.2	10	90.9	4.8	113.1	98	9.8	6.4	152.2
NONE	51	19.6	46	90.2	22.0	112.2	306	6.7	20.1	102.5
FEMALE UNDER 18 YRS	43	16.5	28	65.1	13.4	81.0	154	5.5	10.1	61.2
ON DIET	9	3.5	7	77.8	3.3	96.8	42	6.0	2.8	79.7
NO DIET	34	13.1	21	61.8	10.0	76.8	112	5.3	7.4	56.3
FEMALE 18 AND OLDER	98	37.7	83	84.7	39.7	105.4	632	7.6	41.5	110.2
LOSING	31	11.9	29	93.5	13.9	116.4	229	7.9	15.0	126.2
WATCHING	6	2.3	6	100.0	2.9	124.4	46	7.7	3.0	131.0
GAINING	-	-	-	-	-	-	-	-	-	-
MEDICAL/HEALTH	13	5.0	9	69.2	4.3	86.1	109	12.1	7.2	143.2
NONE	48	18.5	39	81.3	18.7	101.1	248	6.4	16.3	88.3

Table C-2. Owner household and meal characteristics for foods cooked or heated, but not in MWO's.

REPORT TO N.B.S. | PERIOD MC-5 JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO.OF EATGS
TOTAL SAMPLE HOUSEHOLDS	96	100.0	96	100.0	100.0	100.0	7,293	76.0	100.0	100.0	15,418	100.0	100.0
CENSUS REGION													
NEW ENGLAND	3	3.1	3	100.0	3.1	100.0	233	77.7	3.2	102.2	511	3.3	106.1
MID ATLANTIC	12	12.5	12	100.0	12.5	100.0	961	80.1	13.2	105.4	2,125	13.8	110.3
TOTAL NORTH EAST	15	15.6	15	100.0	15.6	100.0	1,194	79.6	16.4	104.8	2,636	17.1	109.4
WEST NORTH CENTRAL	15	15.6	15	100.0	15.6	100.0	880	58.7	12.1	77.2	2,184	14.2	90.7
EAST NORTH CENTRAL	17	17.7	17	100.0	17.7	100.0	1,208	71.1	16.6	93.5	2,376	15.4	87.0
TOTAL NORTH CENTRAL	32	33.3	32	100.0	33.3	100.0	2,088	65.3	28.6	85.9	4,560	29.6	88.7
WEST SOUTH CENTRAL	8	8.3	8	100.0	8.3	100.0	780	97.5	10.7	128.3	1,512	9.8	117.7
EAST SOUTH CENTRAL	5	5.2	5	100.0	5.2	100.0	305	61.0	4.2	80.3	751	4.9	93.5
SOUTH ATLANTIC	16	16.7	16	100.0	16.7	100.0	1,493	93.3	20.5	122.8	3,252	21.1	126.6
TOTAL SOUTH	29	30.2	29	100.0	30.2	100.0	2,578	88.9	35.3	117.0	5,515	35.8	118.4
PACIFIC	19	19.8	19	100.0	19.8	100.0	1,416	74.5	19.4	98.1	2,658	17.2	87.1
MOUNTAIN	1	1.0	1	100.0	1.0	100.0	17	17.0	.2	22.4	49	.3	30.5
TOTAL WEST	20	20.8	20	100.0	20.8	100.0	1,433	71.7	19.6	94.3	2,707	17.6	84.3
METRO AREA SIZE													
FARM	3	3.1	3	100.0	3.1	100.0	292	97.3	4.0	128.1	864	5.6	179.3
UNDER 2,500	9	9.4	9	100.0	9.4	100.0	781	86.8	10.7	114.2	1,778	11.5	123.0
2,500-49,999	13	13.5	13	100.0	13.5	100.0	969	74.5	13.3	98.1	2,185	14.2	104.7
50,000-249,999	4	4.2	4	100.0	4.2	100.0	273	68.3	3.7	89.8	565	3.7	87.9
250,000-499,999	10	10.4	10	100.0	10.4	100.0	756	75.6	10.4	99.5	1,886	12.2	117.4
500,000-999,999	9	9.4	9	100.0	9.4	100.0	753	83.7	10.3	110.1	1,223	7.9	84.6
1 MIL. & OVER	48	50.0	48	100.0	50.0	100.0	3,469	72.3	47.6	95.1	6,917	44.9	89.7
HOUSEHOLD INCOME													
UNDER $4,000	10	10.4	10	100.0	10.4	100.0	647	64.7	8.9	85.2	914	5.9	56.9
$4,000-$6,999	13	13.5	13	100.0	13.5	100.0	923	71.0	12.7	93.5	1,786	11.6	85.9
$7,000-$9,999	13	13.5	13	100.0	13.5	100.0	962	74.0	13.2	97.4	1,912	12.4	91.6
$10,000-$14,999	22	22.9	22	100.0	22.9	100.0	1,924	87.5	26.4	115.1	4,532	29.4	128.3
$15,000-$24,999	30	31.3	30	100.0	31.3	100.0	2,316	77.2	31.8	101.6	5,137	33.3	106.6
$25,000 & OVER	8	8.3	8	100.0	8.3	100.0	521	65.1	7.1	85.7	1,137	7.4	88.5
EDUCATION-HEAD													
UNDER 9TH GRADE	8	8.3	8	100.0	8.3	100.0	678	84.8	9.3	111.6	1,335	8.7	103.9
9TH-12TH GRADE	43	44.8	43	100.0	44.8	100.0	3,461	80.5	47.5	105.9	7,324	47.5	106.1
13 YRS. & OVER	45	46.9	45	100.0	46.9	100.0	3,154	70.1	43.2	92.3	6,759	43.8	93.5
HSWF. EMPLOYMENT													
EMPLOYED	47	49.0	47	100.0	49.0	100.0	3,075	65.4	42.2	86.1	6,376	41.4	84.5
NOT EMPLOYED	49	51.0	49	100.0	51.0	100.0	4,218	86.1	57.8	113.3	9,042	58.6	114.9

Table C-2. Owner household and meal characteristics for foods cooked or heated, but not in MWO's. (continued)

REPORT TO N.B.S. MC-5 | PERIOD JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC OFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO. OF EATGS
OCCUPATION-HEAD													
WHITE-COLLAR	47	49.0	47	100.0	49.0	100.0	3,089	65.7	42.4	86.5	6,569	42.6	87.0
BLUE-COLLAR	29	30.2	29	100.0	30.2	100.0	2,454	84.6	33.6	111.4	6,017	39.0	129.2
FARMER	-	-	-	-	-	-	-	-	-	-	-	-	-
NOT A WORKER	20	20.8	20	100.0	20.8	100.0	1,750	87.5	24.0	115.2	2,832	18.4	88.2
HOUSEHOLD SIZE													
1 PERSON	21	21.9	21	100.0	21.9	100.0	1,117	53.2	15.3	70.0	1,237	8.0	36.7
2 PERSONS	32	33.3	32	100.0	33.3	100.0	2,231	69.7	30.6	91.8	3,885	25.2	75.6
3-4 PERSONS	32	33.3	32	100.0	33.3	100.0	3,051	95.3	41.8	125.5	7,077	45.9	137.7
5 OR MORE	11	11.5	11	100.0	11.5	100.0	894	81.3	12.3	107.0	3,219	20.9	182.2
PRESENCE OF CHILDREN													
NONE	57	59.4	57	100.0	59.4	100.0	3,774	66.2	51.7	87.2	6,023	39.1	65.8
UNDER 6 YEARS	8	8.3	8	100.0	8.3	100.0	945	118.1	13.0	155.5	1,890	12.3	147.1
6-12 YEARS	8	8.3	8	100.0	8.3	100.0	675	84.4	9.3	111.1	2,285	14.8	177.8
13-17 YEARS	11	11.5	11	100.0	11.5	100.0	982	89.3	13.5	117.5	2,342	15.2	132.6
UNDER 6 & 6-12	6	6.3	6	100.0	6.3	100.0	418	69.7	5.7	91.7	1,322	8.6	137.2
UNDER 6 & 13-17	-	-	-	-	-	-	-	-	-	-	-	-	-
6-12 & 13-17	5	5.2	5	100.0	5.2	100.0	408	81.6	5.6	107.4	1,196	7.8	148.9
ALL THREE AGES	1	1.0	1	100.0	1.0	100.0	91	91.0	1.2	119.8	360	2.3	224.2
AGE OF HOUSEWIFE													
UNDER 25 YEARS	8	8.3	8	100.0	8.3	100.0	635	79.4	8.7	104.5	1,135	7.4	89.3
25-34 YEARS	26	27.1	26	100.0	27.1	100.0	1,809	69.6	24.8	91.6	4,862	31.5	116.4
35-44 YEARS	16	16.7	16	100.0	16.7	100.0	1,259	78.7	17.3	103.6	3,280	21.3	127.6
45-54 YEARS	18	18.8	18	100.0	18.8	100.0	1,374	76.3	18.8	100.5	2,632	17.1	91.0
55-64 YEARS	14	14.6	14	100.0	14.6	100.0	1,167	83.4	16.0	109.7	2,057	13.3	91.5
65 YEARS & OVER	14	14.6	14	100.0	14.6	100.0	1,049	74.9	14.4	98.6	1,452	9.4	64.6
RACE													
WHITE	90	93.8	90	100.0	93.8	100.0	6,677	74.2	91.6	97.7	14,181	92.0	98.1
NON WHITE	6	6.3	6	100.0	6.3	100.0	616	102.7	8.4	135.1	1,237	8.0	128.4
SEASONAL TOTALS													
JAN-MARCH 1975	27	28.1	27	100.0	28.1	100.0	2,249	83.3	30.8	109.6	4,494	29.1	103.6
APRIL-JUNE 1975	24	25.0	24	100.0	25.0	100.0	1,806	75.3	24.8	99.1	4,168	27.0	108.1
JULY-SEPT 1975	26	27.1	26	100.0	27.1	100.0	1,834	70.5	25.1	92.9	3,933	25.5	94.2
OCT-DEC 1975	19	19.8	19	100.0	19.8	100.0	1,404	73.9	19.3	97.3	2,823	18.3	92.5
DISH TYPE DISTRIBUTION													
BASE DISH	-	-	96	-	100.0	-	6,896	71.8	94.6	-	14,502	94.1	-
ADDITIVE	-	-	79	-	82.3	-	397	5.0	5.4	-	916	5.9	-
BASE & ADDITIVE	-	-	96	-	100.0	-	7,293	76.0	100.0	-	15,418	100.0	-
COMPONENT	-	-	-	-	-	-	-	-	-	-	-	-	-
INGREDIENT	-	-	-	-	-	-	-	-	-	-	-	-	-
AGENT	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C-2. Owner household and meal characteristics for foods cooked or heated, but not in MWO's. (continued)

REPORT TO N.B.S. MC-5 PERIOD JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO.OF EATGS
TOTAL SAMPLE MEALS	-	-	96	100.0	100.0	-	7,293	76.0	100.0	-	15,418	100.0	-
DAY OF WEEK													
SUNDAY	-	-	96	100.0	100.0	-	1,052	11.0	14.4	-	2,709	17.6	-
MONDAY-THURSDAY	-	-	96	100.0	100.0	-	4,220	44.0	57.9	-	8,475	55.0	-
FRIDAY	-	-	94	97.9	97.9	-	1,026	10.9	14.1	-	2,012	13.0	-
SATURDAY	-	-	95	99.0	99.0	-	995	10.5	13.6	-	2,222	14.4	-
MEAL IDENTITY													
MORNING MEAL	-	-	96	100.0	100.0	-	2,704	28.2	37.1	-	4,869	31.6	-
MIDDAY MEAL	-	-	90	93.8	93.8	-	1,255	13.9	17.2	-	2,761	17.9	-
EVENING MEAL	-	-	94	97.9	97.9	-	2,531	26.9	34.7	-	6,560	42.5	-
MORNING SNACK	-	-	31	32.3	32.3	-	111	3.6	1.5	-	149	1.0	-
AFTERNOON SNACK	-	-	44	45.8	45.8	-	162	3.7	2.2	-	265	1.7	-
EVE/BED T SNACK	-	-	56	58.3	58.3	-	265	4.7	3.6	-	504	3.3	-
CARRIED MEALS	-	-	56	58.3	58.3	-	265	4.7	3.6	-	310	2.0	-
GUESTS PRESENT													
NONE	-	-	96	100.0	100.0	-	6,632	69.1	90.9	-	12,662	82.1	-
UNDER 13 YRS ONLY	-	-	13	13.5	13.5	-	74	5.7	1.0	-	286	1.9	-
13 YRS & OVER ONLY	-	-	46	47.9	47.9	-	477	10.4	6.5	-	1,710	11.1	-
BOTH AGE GROUPS	-	-	25	26.0	26.0	-	110	4.4	1.5	-	760	4.9	-
PLACE EATEN													
KITCHEN	-	-	85	88.5	88.5	-	4,461	52.5	61.2	-	9,073	58.8	-
DINING ROOM	-	-	38	39.6	39.6	-	1,302	34.3	17.9	-	3,628	23.5	-
OTHER-INDOORS	-	-	32	33.3	33.3	-	614	19.2	8.4	-	1,035	6.7	-
OUTDOORS	-	-	13	13.5	13.5	-	89	6.8	1.2	-	393	2.5	-
SNACK,C.M.,DK	-	-	82	85.4	85.4	-	827	10.1	11.3	-	1,289	8.4	-
DISH POSITION													
MAIN DISH	-	-	96	100.0	100.0	-	3,054	31.8	41.9	-	6,876	44.6	-
DESSERT	-	-	51	53.1	53.1	-	176	3.5	2.4	-	400	2.6	-
SIDE DISH,OTHER	-	-	93	96.9	96.9	-	3,260	35.1	44.7	-	6,914	44.8	-
SNACKS & C.M.	-	-	82	85.4	85.4	-	803	9.8	11.0	-	1,228	8.0	-
GUESTS EATING													
UNDER 13 YRS	-										215		
13 YRS & OVER	-										736		

Table C-2. Owner household and meal characteristics for foods cooked or heated, but not in MWO's. (continued)

REPORT TO N.B.S. | PERIOD MC-5 JANUARY-DECEMBER 1975

PERSON - EATER CHARACTERISTIC PROFILES	MEMBRS IN SAMPLE	DIVISN OF SMPL MEMBRS	NUMBER OF NET EATERS	PERCNT EATER PNTRTN	% TOT NET EATERS	INDEX NET EATERS	NUMBER OF EATNGS	TIMES PER EATER	% OF TOTAL EATGS	INDEX NO.OF EATGS
TOTAL SAMPLE MEMBERS	260	100.0	260	100.0	100.0	100.0	14,198	54.6	100.0	100.0
AGE-SEX OF MEMBERS										
MALE MEMBERS-TOTAL	119	45.8	119	100.0	45.8	100.0	6,384	53.6	45.0	98.2
UNDER 2 YEARS	2	.8	2	100.0	.8	100.0	160	80.0	1.1	146.5
2-5 YEARS	9	3.5	9	100.0	3.5	100.0	448	49.8	3.2	91.2
6-12 YEARS	21	8.1	21	100.0	8.1	100.0	1,002	47.7	7.1	87.4
13-17 YEARS	8	3.1	8	100.0	3.1	100.0	361	45.1	2.5	82.6
18-24 YEARS	11	4.2	11	100.0	4.2	100.0	461	41.9	3.2	76.7
25-44 YEARS	38	14.6	38	100.0	14.6	100.0	2,064	54.3	14.5	99.5
45-54 YEARS	10	3.8	10	100.0	3.8	100.0	574	57.4	4.0	105.1
55 64 YEARS	11	4.2	11	100.0	4.2	100.0	592	53.8	4.2	98.6
65 YEARS & OVER	9	3.5	9	100.0	3.5	100.0	722	80.2	5.1	146.9
FEMALE MEMBER-TOTAL	141	54.2	141	100.0	54.2	100.0	7,814	55.4	55.0	101.5
UNDER 2 YEARS	3	1.2	3	100.0	1.2	100.0	148	49.3	1.0	90.3
2-5 YEARS	7	2.7	7	100.0	2.7	100.0	306	43.7	2.2	80.1
6-12 YEARS	17	6.5	17	100.0	6.5	100.0	813	47.8	5.7	87.6
13-17 YEARS	16	6.2	16	100.0	6.2	100.0	677	42.3	4.8	77.5
18-24 YEARS	11	4.2	11	100.0	4.2	100.0	534	48.5	3.8	88.9
25-44 YEARS	40	15.4	40	100.0	15.4	100.0	2,386	59.7	16.8	109.2
45-54 YEARS	18	6.9	18	100.0	6.9	100.0	1,019	56.6	7.2	103.7
55-64 YEARS	14	5.4	14	100.0	5.4	100.0	898	64.1	6.3	117.5
65 YEARS & OVER	15	5.8	15	100.0	5.8	100.0	1,033	68.9	7.3	126.1
DIET STATUS-MEMBERS										
MALE UNDER 18 YRS	40	15.4	40	100.0	15.4	100.0	1,971	49.3	13.9	90.2
ON DIET	-	-	-	-	-	-	-	-	-	-
NO DIET	40	15.4	40	100.0	15.4	100.0	1,971	49.3	13.9	90.2
MALE 18 AND OLDER	79	30.4	79	100.0	30.4	100.0	4,413	55.9	31.1	102.3
LOSING	12	4.6	12	100.0	4.6	100.0	700	58.3	4.9	106.8
WATCHING	4	1.5	4	100.0	1.5	100.0	192	48.0	1.4	87.9
GAINING	1	.4	1	100.0	.4	100.0	67	67.0	.5	122.7
MEDICAL/HEALTH	11	4.2	11	100.0	4.2	100.0	575	52.3	4.0	95.7
NONE	51	19.6	51	100.0	19.6	100.0	2,879	56.5	20.3	103.4
FEMALE UNDER 18 YRS	43	16.5	43	100.0	16.5	100.0	1,944	45.2	13.7	82.8
ON DIET	9	3.5	9	100.0	3.5	100.0	331	36.8	2.3	67.3
NO DIET	34	13.1	34	100.0	13.1	100.0	1,613	47.4	11.4	86.9
FEMALE 18 AND OLDER	98	37.7	98	100.0	37.7	100.0	5,870	59.9	41.3	109.7
LOSING	31	11.9	31	100.0	11.9	100.0	1,743	56.2	12.3	103.0
WATCHING	6	2.3	6	100.0	2.3	100.0	376	62.7	2.6	114.8
GAINING	-	-	-	-	-	-	-	-	-	-
MEDICAL/HEALTH	13	5.0	13	100.0	5.0	100.0	776	59.7	5.5	109.3
[illegible]	48	18.5	48	100.0	18.5	100.0	2,975	62.0	21.0	113.5

Table C-3. MWO-owner household and meal characteristics for all foods cooked or heated.

REPORT TO N.F.S. — PERIOD MC-5 JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO.OF EATGS
TOTAL SAMPLE HOUSEHOLDS	96	100.0	96	100.0	100.0	100.0	8,128	84.7	100.0	100.0	17,015	100.0	100.0
CENSUS REGION													
NEW ENGLAND	3	3.1	3	100.0	3.1	100.0	249	83.0	3.1	98.0	533	3.1	100.2
MID ATLANTIC	12	12.5	12	100.0	12.5	100.0	1,027	85.6	12.6	101.1	2,254	13.2	106.0
TOTAL NORTH EAST	15	15.6	15	100.0	15.6	100.0	1,276	85.1	15.7	100.5	2,787	16.4	104.8
WEST NORTH CENTRAL	15	15.6	15	100.0	15.6	100.0	1,019	67.9	12.5	80.2	2,469	14.5	92.9
EAST NORTH CENTRAL	17	17.7	17	100.0	17.7	100.0	1,279	75.2	15.7	88.9	2,509	14.7	83.3
TOTAL NORTH CENTRAL	32	33.3	32	100.0	33.3	100.0	2,298	71.8	28.3	84.8	4,978	29.3	87.8
WEST SOUTH CENTRAL	8	8.3	8	100.0	8.3	100.0	854	106.8	10.5	126.1	1,646	9.7	116.1
EAST SOUTH CENTRAL	5	5.2	5	100.0	5.2	100.0	375	75.0	4.6	88.6	926	5.4	104.5
SOUTH ATLANTIC	16	16.7	16	100.0	16.7	100.0	1,646	102.9	20.3	121.5	3,521	20.7	124.2
TOTAL SOUTH	29	30.2	29	100.0	30.2	100.0	2,875	99.1	35.4	117.1	6,093	35.8	118.5
PACIFIC	19	19.8	19	100.0	19.8	100.0	1,654	87.1	20.3	102.8	3,093	18.2	91.8
MOUNTAIN	1	1.0	1	100.0	1.0	100.0	25	25.0	.3	29.5	64	.4	36.1
TOTAL WEST	20	20.8	20	100.0	20.8	100.0	1,679	84.0	20.7	99.2	3,157	18.6	89.1
METRO AREA SIZE													
FARM	3	3.1	3	100.0	3.1	100.0	296	98.7	3.6	116.5	877	5.2	164.9
UNDER 2,500	9	9.4	9	100.0	9.4	100.0	921	102.3	11.3	120.9	2,066	12.1	129.5
2,500-49,999	13	13.5	13	100.0	13.5	100.0	1,063	81.8	13.1	96.6	2,346	13.8	101.8
50,000-249,999	4	4.2	4	100.0	4.2	100.0	297	74.3	3.7	87.7	660	3.9	93.1
250,000-499,999	10	10.4	10	100.0	10.4	100.0	815	81.5	10.0	96.3	1,977	11.6	111.5
500,000-999,999	9	9.4	9	100.0	9.4	100.0	860	95.6	10.6	112.9	1,403	8.2	88.0
1 MIL. & OVER	48	50.0	48	100.0	50.0	100.0	3,876	80.8	47.7	95.4	7,686	45.2	90.3
HOUSEHOLD INCOME													
UNDER $4,000	10	10.4	10	100.0	10.4	100.0	771	77.1	9.5	91.1	1,088	6.4	61.4
$4,000-$6,999	13	13.5	13	100.0	13.5	100.0	990	76.2	12.2	89.9	1,894	11.1	82.2
$7,000-$9,999	13	13.5	13	100.0	13.5	100.0	1,094	84.2	13.5	99.4	2,151	12.6	93.4
$10,000-$14,999	22	22.9	22	100.0	22.9	100.0	2,103	95.6	25.9	112.9	4,911	28.9	125.9
$15,000-$24,999	30	31.3	30	100.0	31.3	100.0	2,587	86.2	31.8	101.9	5,714	33.6	107.5
$25,000 & OVER	8	8.3	8	100.0	8.3	100.0	583	72.9	7.2	86.1	1,257	7.4	83.7
EDUCATION-HEAD													
UNDER 9TH GRADE	8	8.3	8	100.0	8.3	100.0	781	97.6	9.6	115.3	1,517	8.9	107.0
9TH-12TH GRADE	43	44.8	43	100.0	44.8	100.0	3,756	87.3	46.2	103.2	7,832	46.0	102.8
13 YRS. & OVER	45	46.9	45	100.0	46.9	100.0	3,591	79.8	44.2	94.3	7,666	45.1	96.1
HSHF. EMPLOYMENT													
EMPLOYED	47	49.0	47	100.0	49.0	100.0	3,440	73.2	42.3	86.4	7,047	41.4	84.6
NOT EMPLOYED	49	51.0	49	100.0	51.0	100.0	4,688	95.7	57.7	113.0	9,968	58.6	114.8

Table C-3. MWO-owner household and meal characteristics for all foods cooked or heated. (continued)

REPORT TO N.H.S. | PERIOD MC-5 JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO.OF EATGS
OCCUPATION-HEAD													
WHITE-COLLAR	47	49.0	47	100.0	49.0	100.0	3,531	75.1	43.4	88.7	7,394	43.5	88.8
BLUE-COLLAR	29	30.2	29	100.0	30.2	100.0	2,652	91.4	32.6	108.0	6,472	38.0	125.9
FARMER	-	-	-	-	-	-	-	-	-	-	-	-	-
NOT A WORKER	20	20.8	20	100.0	20.8	100.0	1,945	97.3	23.9	114.9	3,149	18.5	88.8
HOUSEHOLD SIZE													
1 PERSON	21	21.9	21	100.0	21.9	100.0	1,252	59.6	15.4	70.4	1,373	8.1	36.9
2 PERSONS	32	33.3	32	100.0	33.3	100.0	2,482	77.6	30.5	91.6	4,272	25.1	75.3
3-4 PERSONS	32	33.3	32	100.0	33.3	100.0	3,427	107.1	42.2	126.5	7,911	46.5	139.5
5 OR MORE	11	11.5	11	100.0	11.5	100.0	967	87.9	11.9	103.8	3,459	20.3	177.4
PRESENCE OF CHILDREN													
NONE	57	59.4	57	100.0	59.4	100.0	4,169	73.1	51.3	86.4	6,593	38.7	65.3
UNDER 6 YEARS	8	8.3	8	100.0	8.3	100.0	1,008	126.0	12.4	148.8	1,967	11.6	138.7
6-12 YEARS	8	8.3	8	100.0	8.3	100.0	803	100.4	9.9	118.6	2,619	15.4	184.7
13-17 YEARS	11	11.5	11	100.0	11.5	100.0	1,141	103.7	14.0	122.5	2,733	16.1	140.2
UNDER 6 & 6-12	6	6.3	6	100.0	6.3	100.0	498	83.0	6.1	98.0	1,517	8.9	142.7
UNDER 6 & 13-17	-	-	-	-	-	-	-	-	-	-	-	-	-
6-12 & 13-17	5	5.2	5	100.0	5.2	100.0	417	83.4	5.1	98.5	1,220	7.2	137.7
ALL THREE AGES	1	1.0	1	100.0	1.0	100.0	92	92.0	1.1	108.7	366	2.2	206.5
AGE OF HOUSEWIFE													
UNDER 25 YEARS	8	8.3	8	100.0	8.3	100.0	708	88.5	8.7	104.5	1,212	7.1	85.5
25-34 YEARS	26	27.1	26	100.0	27.1	100.0	2,019	77.7	24.8	91.7	5,299	31.1	115.0
35-44 YEARS	16	16.7	16	100.0	16.7	100.0	1,474	92.1	18.1	108.8	3,836	22.5	135.3
45-54 YEARS	18	18.8	18	100.0	18.8	100.0	1,506	83.7	18.5	98.8	2,850	16.7	89.3
55-64 YEARS	14	14.6	14	100.0	14.6	100.0	1,271	90.8	15.6	107.2	2,229	13.1	89.8
65 YEARS & OVER	14	14.6	14	100.0	14.6	100.0	1,150	82.1	14.1	97.0	1,589	9.3	64.0
RACE													
WHITE	90	93.8	90	100.0	93.8	100.0	7,449	82.8	91.6	97.8	15,684	92.2	98.3
NON WHITE	6	6.3	6	100.0	6.3	100.0	679	113.2	8.4	133.7	1,331	7.8	125.2
SEASONAL TOTALS													
JAN-MARCH 1975	27	28.1	27	100.0	28.1	100.0	2,524	93.5	31.1	110.4	5,027	29.5	105.0
APRIL-JUNE 1975	24	25.0	24	100.0	25.0	100.0	1,963	81.8	24.2	96.6	4,473	26.3	105.2
JULY-SEPT 1975	26	27.1	26	100.0	27.1	100.0	2,021	77.7	24.9	91.8	4,334	25.5	94.0
OCT-DEC 1975	19	19.8	19	100.0	19.8	100.0	1,620	85.3	19.9	100.7	3,181	18.7	94.5
DISH TYPE DISTRIBUTION													
BASE DISH	-	-	96	-	100.0	-	7,626	79.4	93.8	-	15,901	93.5	-
ADDITIVE	-	-	83	-	86.5	-	502	6.0	6.2	-	1,114	6.5	-
BASE & ADDITIVE	-	-	96	-	100.0	-	8,128	84.7	100.0	-	17,015	100.0	-
COMPONENT	-	-	-	-	-	-	-	-	-	-	-	-	-
INGREDIENT	-	-	-	-	-	-	-	-	-	-	-	-	-
ASSN	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C-3. MWO-owner household and meal characteristics for all foods cooked or heated. (continued)

REPORT TO N.B.S. | PERIOD MC-5 JANUARY-DECEMBER 1975

SHLD & MEAL HARACTERISTIC ROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO.OF EATGS
TAL SAMPLE MEALS	-	-	96	100.0	100.0	-	8,128	84.7	100.0	-	17,015	100.0	-
AY OF WEEK													
SUNDAY	-	-	96	100.0	100.0	-	1,171	12.2	14.4	-	2,962	17.4	-
MONDAY-THURSDAY	-	-	96	100.0	100.0	-	4,745	49.4	58.4	-	9,452	55.6	-
FRIDAY	-	-	96	100.0	100.0	-	1,130	11.8	13.9	-	2,176	12.8	-
SATURDAY	-	-	95	99.0	99.0	-	1,082	11.4	13.3	-	2,425	14.3	-
EAL IDENTITY													
MORNING MEAL	-	-	96	100.0	100.0	-	2,847	29.7	35.0	-	5,104	30.0	-
MIDDAY MEAL	-	-	91	94.8	94.8	-	1,386	15.2	17.1	-	3,047	17.9	-
EVENING MEAL	-	-	95	99.0	99.0	-	2,849	30.0	35.1	-	7,358	43.2	-
MORNING SNACK	-	-	32	33.3	33.3	-	117	3.7	1.4	-	155	.9	-
AFTERNOON SNACK	-	-	46	47.9	47.9	-	177	3.8	2.2	-	287	1.7	-
EVE/BED T SNACK	-	-	59	61.5	61.5	-	302	5.1	3.7	-	566	3.3	-
CARRIED MEALS	-	-	60	62.5	62.5	-	450	7.5	5.5	-	498	2.9	-
UESTS PRESENT													
NONE	-	-	96	100.0	100.0	-	7,426	77.4	91.4	-	14,081	82.8	-
UNDER 13 YRS ONLY	-	-	14	14.6	14.6	-	78	5.6	1.0	-	301	1.8	-
13 YRS & OVER ONLY	-	-	47	49.0	49.0	-	509	10.8	6.3	-	1,828	10.7	-
BOTH AGE GROUPS	-	-	25	26.0	26.0	-	115	4.6	1.4	-	805	4.7	-
LACE EATEN													
KITCHEN	-	-	85	88.5	88.5	-	4,832	56.8	59.4	-	9,863	58.0	-
DINING ROOM	-	-	38	39.6	39.6	-	1,458	38.4	17.9	-	4,035	23.7	-
OTHER-INDOORS	-	-	33	34.4	34.4	-	673	20.4	8.3	-	1,142	6.7	-
OUTDOORS	-	-	13	13.5	13.5	-	90	6.9	1.1	-	394	2.3	-
SNACK,C.M.,DK	-	-	86	89.6	89.6	-	1,075	12.5	13.2	-	1,581	9.3	-
ISH POSITION													
MAIN DISH	-	-	96	100.0	100.0	-	3,391	35.3	41.7	-	7,624	44.8	-
DESSERT	-	-	53	55.2	55.2	-	185	3.5	2.3	-	416	2.4	-
SIDE DISH,OTHER	-	-	93	96.9	96.9	-	3,506	37.7	43.1	-	7,469	43.9	-
SNACKS & C.M.	-	-	86	89.6	89.6	-	1,046	12.2	12.9	-	1,506	8.9	-
UESTS EATING													
UNDER 13 YRS	-										229		
13 YRS & OVER	-										780		

Table C-4. Non-owner household and meal characteristics for all foods cooked or heated. (continued)

REPORT TO N.D.S. MC-5 | PERIOD JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PNTRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDEX NO. OF EATGS
OCCUPATION-HEAD													
WHITE-COLLAR	45	46.9	45	100.0	46.9	100.0	3,570	79.3	44.1	94.1	7,686	44.8	95.6
BLUE-COLLAR	31	32.3	31	100.0	32.3	100.0	2,733	88.2	33.8	104.6	6,495	37.9	117.2
FARMER	2	2.1	2	100.0	2.1	100.0	244	122.0	3.0	144.7	600	3.5	167.9
NOT A WORKER	18	18.8	18	100.0	18.8	100.0	1,548	86.0	19.1	102.0	2,374	13.8	73.8
HOUSEHOLD SIZE													
1 PERSON	17	17.7	17	100.0	17.7	100.0	1,210	71.2	14.9	84.4	1,322	7.7	43.5
2 PERSONS	33	34.4	33	100.0	34.4	100.0	2,580	78.2	31.9	92.7	4,542	26.5	77.0
3-4 PERSONS	37	38.5	37	100.0	38.5	100.0	3,299	89.2	40.8	105.7	7,929	46.2	119.9
5 OR MORE	9	9.4	9	100.0	9.4	100.0	1,006	111.8	12.4	132.6	3,362	19.6	209.0
PRESENCE OF CHILDREN													
NONE	56	58.3	56	100.0	58.3	100.0	4,358	77.8	53.8	92.3	7,285	42.5	72.8
UNDER 6 YEARS	14	14.6	14	100.0	14.6	100.0	1,061	75.8	13.1	89.9	2,680	15.6	107.1
6-12 YEARS	5	5.2	5	100.0	5.2	100.0	391	78.2	4.8	92.7	1,013	5.9	113.4
13-17 YEARS	7	7.3	7	100.0	7.3	100.0	663	94.7	8.2	112.3	1,511	8.8	120.8
UNDER 6 & 6-12	10	10.4	10	100.0	10.4	100.0	1,183	118.3	14.6	140.3	3,034	17.7	169.8
UNDER 6 & 13-17	-	-	-	-	-	-	-	-	-	-	-	-	-
6-12 & 13-17	4	4.2	4	100.0	4.2	100.0	439	109.8	5.4	130.2	1,632	9.5	228.3
ALL THREE AGES	-	-	-	-	-	-	-	-	-	-	-	-	-
AGE OF HOUSEWIFE													
UNDER 25 YEARS	7	7.3	7	100.0	7.3	100.0	360	51.4	4.4	61.0	707	4.1	56.5
25-34 YEARS	28	29.2	28	100.0	29.2	100.0	2,446	87.4	30.2	103.6	5,658	33.0	113.1
35-44 YEARS	18	18.8	18	100.0	18.8	100.0	1,660	92.2	20.5	109.4	4,447	25.9	138.3
45-54 YEARS	16	16.7	16	100.0	16.7	100.0	1,234	77.1	15.2	91.5	2,380	13.9	83.2
55-64 YEARS	11	11.5	11	100.0	11.5	100.0	1,070	97.3	13.2	115.4	2,148	12.5	109.3
65 YEARS & OVER	16	16.7	16	100.0	16.7	100.0	1,325	82.8	16.4	98.2	1,815	10.6	63.5
RACE													
WHITE	90	93.8	90	100.0	93.8	100.0	7,524	83.6	92.9	99.1	15,825	92.2	98.4
NON WHITE	6	6.3	6	100.0	6.3	100.0	571	95.2	7.1	112.9	1,330	7.8	124.0
SEASONAL TOTALS													
JAN-MARCH 1975	24	25.0	24	100.0	25.0	100.0	2,006	83.6	24.8	99.1	4,652	27.1	108.5
APRIL-JUNE 1975	26	27.1	26	100.0	27.1	100.0	2,043	78.6	25.2	93.2	4,092	23.9	88.1
JULY-SEPT 1975	17	17.7	17	100.0	17.7	100.0	1,126	66.2	13.9	78.5	2,021	11.8	66.5
OCT-DEC 1975	29	30.2	29	100.0	30.2	100.0	2,920	100.7	36.1	119.4	6,390	37.2	123.3
DISH TYPE DISTRIBUTION													
BASE DISH	-	-	96	-	100.0	-	7,668	79.9	94.7	-	16,116	93.9	-
ADDITIVE	-	-	84	-	87.5	-	427	5.1	5.3	-	1,039	6.1	-
BASE & ADDITIVE	-	-	96	-	100.0	-	8,095	84.3	100.0	-	17,155	100.0	-
COMPONENT	-	-	-	-	-	-	-	-	-	-	-	-	-
INGREDIENT	-	-	-	-	-	-	-	-	-	-	-	-	-
AGENT	-	-	-	-	-	-	-	-	-	-	-	-	-

Table C-4. Non-owner household and meal characteristics for all foods cooked or heated. (continued)

REPORT TO N.F.S. — PERIOD MC-5 JANUARY-DECEMBER 1975

HSHLD & MEAL CHARACTERISTIC PROFILES	SAMPLE HSHLDS /MEALS	DIVISN OF TOT SAMPLE	HSHLDS USING/ SERVNG	PERCNT HSHLD PATRTN	% TOT HSHLDS USING	INDEX HSHLDS USING	TIMES USED/ SERVED	TIMES PER HSHLD	% TOT TIMES SERVD	INDEX TIMES SERVD	TOTAL NO. OF EATINGS	% OF TOTAL EATGS	INDE NO.O EATG
TOTAL SAMPLE MEALS	-	-	96	100.0	100.0	-	8,095	84.3	100.0	-	17,155	100.0	
DAY OF WEEK													
SUNDAY	-	-	96	100.0	100.0	-	1,147	11.9	14.2	-	2,822	16.5	
MONDAY-THURSDAY	-	-	96	100.0	100.0	-	4,744	49.4	58.6	-	9,725	56.7	
FRIDAY	-	-	96	100.0	100.0	-	1,102	11.5	13.6	-	2,183	12.7	
SATURDAY	-	-	96	100.0	100.0	-	1,102	11.5	13.6	-	2,425	14.1	
MEAL IDENTITY													
MORNING MEAL	-	-	95	99.0	99.0	-	2,929	30.8	36.2	-	5,281	30.8	
MIDDAY MEAL	-	-	94	97.9	97.9	-	1,478	15.7	18.3	-	3,093	18.0	
EVENING MEAL	-	-	94	97.9	97.9	-	2,953	31.4	36.5	-	7,621	44.4	
MORNING SNACK	-	-	24	25.0	25.0	-	65	2.7	.8	-	93	.5	
AFTERNOON SNACK	-	-	38	39.6	39.6	-	91	2.4	1.1	-	177	1.0	
EVE/BED T SNACK	-	-	52	54.2	54.2	-	273	5.3	3.4	-	544	3.2	
CARRIED MEALS	-	-	52	54.2	54.2	-	306	5.9	3.8	-	346	2.0	
GUESTS PRESENT													
NONE	-	-	96	100.0	100.0	-	7,264	75.7	89.7	-	14,131	82.4	
UNDER 13 YRS ONLY	-	-	10	10.4	10.4	-	95	9.5	1.2	-	247	1.4	
13 YRS & OVER ONLY	-	-	44	45.8	45.8	-	587	13.3	7.3	-	1,993	11.6	
BOTH AGE GROUPS	-	-	21	21.9	21.9	-	149	7.1	1.8	-	784	4.6	
PLACE EATEN													
KITCHEN	-	-	73	76.0	76.0	-	4,400	60.3	54.4	-	9,754	56.9	
DINING ROOM	-	-	49	51.0	51.0	-	2,370	48.4	29.3	-	5,328	31.1	
OTHER-INDOORS	-	-	27	28.1	28.1	-	523	19.4	6.5	-	795	4.6	
OUTDOORS	-	-	4	4.2	4.2	-	52	13.0	.6	-	82	.5	
SNACK, C.M., DK	-	-	79	82.3	82.3	-	750	9.5	9.3	-	1,196	7.0	
DISH POSITION													
MAIN DISH	-	-	96	100.0	100.0	-	3,604	37.5	44.5	-	8,226	48.0	
DESSERT	-	-	60	62.5	62.5	-	186	3.1	2.3	-	463	2.7	
SIDE DISH, OTHER	-	-	96	100.0	100.0	-	3,570	37.2	44.1	-	7,306	42.6	
SNACKS & C.M.	-	-	77	80.2	80.2	-	735	9.5	9.1	-	1,160	6.8	
GUESTS EATING													
UNDER 13 YRS	-										240		
13 YRS & OVER	-										800		

Table C-4. Non-owner household and meal characteristics for all foods cooked or heated. (continued)

REPORT TO N.F.S. | PERIOD MC-5 JANUARY-DECEMBER 1975

PERSON - EATER CHARACTERISTIC PROFILES	MEMBRS IN SAMPLE	DIVISN OF SMPL MEMBRS	NUMBER OF NET EATERS	PERCNT EATER PATRTN	% TOT NET EATERS	INDEX NET EATERS	NUMBER OF EATNGS	TIMES PER EATER	% OF TOTAL EATGS	INDEX NO.OF EATGS
TOTAL SAMPLE MEMBERS	260	100.0	258	99.2	100.0	100.0	15,894	61.6	100.0	100.0
AGE-SEX OF MEMBERS										
MALE MEMBERS-TOTAL	112	43.1	112	100.0	43.4	100.8	6,990	62.4	44.0	102.1
UNDER 2 YEARS	3	1.2	3	100.0	1.2	100.8	138	46.0	.9	75.2
2-5 YEARS	13	5.0	13	100.0	5.0	100.8	703	54.5	4.5	89.1
6-12 YEARS	12	4.6	12	100.0	4.7	100.8	709	59.1	4.5	96.7
13-17 YEARS	5	1.9	5	100.0	1.9	100.8	297	59.4	1.9	97.2
18-24 YEARS	7	2.7	7	100.0	2.7	100.8	318	45.4	2.0	74.3
25-44 YEARS	41	15.8	41	100.0	15.9	100.8	2,541	62.0	16.0	101.4
45-54 YEARS	9	3.5	9	100.0	3.5	100.8	522	58.0	3.3	94.9
55 64 YEARS	12	4.6	12	100.0	4.7	100.8	936	78.0	5.9	127.6
65 YEARS & OVER	10	3.8	10	100.0	3.9	100.8	821	82.1	5.2	134.3
FEMALE MEMBER-TOTAL	148	56.9	146	98.6	56.6	99.4	8,904	61.0	56.0	98.4
UNDER 2 YEARS	6	2.3	4	66.7	1.6	67.2	331	82.8	2.1	90.2
2-5 YEARS	11	4.2	11	100.0	4.3	100.8	621	56.5	3.9	92.4
6-12 YEARS	15	5.8	15	100.0	5.8	100.8	728	48.5	4.6	79.4
13-17 YEARS	16	6.2	16	100.0	6.2	100.8	852	53.3	5.4	87.1
18-24 YEARS	7	2.7	7	100.0	2.7	100.8	329	47.0	2.1	76.9
25-44 YEARS	48	18.5	48	100.0	18.6	100.8	2,950	59.4	17.9	97.1
45-54 YEARS	15	5.8	15	100.0	5.8	100.8	980	65.3	6.2	106.9
55-64 YEARS	14	5.4	14	100.0	5.4	100.8	1,008	72.0	6.3	117.8
65 YEARS & OVER	16	6.2	16	100.0	6.2	100.8	1,205	75.3	7.6	123.2
DIET STATUS-MEMBERS										
MALE UNDER 18 YRS	33	12.7	33	100.0	12.8	100.8	1,852	56.1	11.7	91.8
ON DIET	-	-	-	-	-	-	-	-	-	-
NO DIET	33	12.7	33	100.0	12.8	100.8	1,852	56.1	11.7	91.8
MALE 18 AND OLDER	79	30.4	79	100.0	30.6	100.8	5,138	65.0	32.3	106.4
LOSING	13	5.0	13	100.0	5.0	100.8	642	49.4	4.0	80.8
WATCHING	2	.8	2	100.0	.8	100.8	214	107.0	1.3	175.0
GAINING	-	-	-	-	-	-	-	-	-	-
MEDICAL/HEALTH	7	2.7	7	100.0	2.7	100.8	384	54.9	2.4	89.7
NONE	57	21.9	57	100.0	22.1	100.8	3,898	68.4	24.5	111.9
FEMALE UNDER 18 YRS	48	18.5	46	95.8	17.8	96.6	2,532	55.0	15.9	86.3
ON DIET	9	3.5	8	88.9	3.1	89.6	410	51.3	2.6	74.5
NO DIET	39	15.0	38	97.4	14.7	98.2	2,122	55.8	13.4	89.0
FEMALE 18 AND OLDER	100	38.5	100	100.0	38.8	100.8	6,372	63.7	40.1	104.2
LOSING	34	13.1	34	100.0	13.2	100.8	2,188	64.4	13.8	105.3
WATCHING	9	3.5	9	100.0	3.5	100.8	490	54.4	3.1	89.1
GAINING	1	.4	1	100.0	.4	100.8	48	48.0	.3	78.5
MEDICAL/HEALTH	11	4.2	11	100.0	4.3	100.8	809	73.5	5.1	120.3
NONE	45	17.3	45	100.0	17.4	100.8	2,837	63.0	17.8	103.1

APPENDIX D. PERMISSION TO RELEASE RESTRICTED DATA

The letter in this appendix from MRCA to NBS is the written release for publication of the particular data in this report for which MRCA reserved limited rights in data. The page numbers in the letter do not correspond exactly to those in the published report because of pagination changes between the version that MRCA reviewed and the present report.

The contractor did not declare Limited Rights in Data on this contract with respect to MWO candidate foods (Report A), but did reserve these rights with respect to the "all foods" data (Report B). The contract between MRCA and NBS includes the following section.

Article X - Limited Rights in Data

1. Notwithstanding Clause 3 of the additional general provisions PD-GP-7A(1-73) of this contract, because of the confidential nature of certain data to be made available by the Contractor hereunder, the Government (NBS) will take all reasonable precautions not to disclose or otherwise make available to any other firm, person or corporation, any report, analysis or other data, made available hereunder, or extracts therefrom, without the prior written consent of a duly authorized officer of the contractor's firm.

   The Contractor agrees that such consent will not be withheld where disclosure is of data at a reasonably high level of aggregation, such as Total Baked Foods, Total Hot Dishes, Total Frozen Prepared Dishes, and the like.

2. Provided that only the data to which limited rights are to be asserted pursuant to paragraph 1 above are marked with the legend below:

   LIMITED RIGHTS LEGEND

   Contract No. 7-35713

   Contractor: Market Research Corporation of America
   624 South Michigan Avenue
   Chicago, Illinois 60605

The limited rights data contained herein shall not, without the written permission of the above Contractor, be used, released or disclosed in whole or in part outside the National Bureau of Standards.

This legend shall be included on any reproduction hereof.

NBS has received written permission to release for public distribution all data from Report B contained in this NBS report.

MRCA
Market Research Corporation of America

August 24, 1978

Dr. John V. Fechter
National Bureau of Standards
Department of Commerce
Human Factors Section 441.02
Room A353, Bldg. 220
Washington, D.C. 20234

Dear John:

Thank you for sending to me a draft report dated August 8, 1978 titled "Houehold Microwave Oven Use", written by Alan D. Davies and John V. Fechter, and for pointing out those sections of this draft which use data provided to you under Contract #7-35713, Modification No. 1, contained in Report B, which is subject to the non-disclosure provisions of this Contract.

Pursuant to your request, permission is hereby granted by MRCA to the National Bureau of Standards to disclose to the public only that information, data, and copies of actual tables already incorporated into the draft copy of the report which you had sent to me.

This authorization for disclosure covers specifically the information shown from Report B in Table 1 on page 11; in Table 2 on page 14; in Table 3 on page 16; in Table 4 on page 19; in Table 5 on page 20; in Table 6 on page 21; in Table 7 on page 23; in Table 9 on page 25; in Table 10 on page 27; in the Contingency Table of Appendix B on page 42; the Demographic Profiles Table C-2 covering all foods cooked or heated by MWO owners, but not in the Microwave Ovens, pages 51, 52, 53, and 54; and the Demographic Profiles for all foods cooked or heated by MWO-owning households shown in Table C-3, pages 55, 56, 57, and 58; and the Demographic Profiles of all foods cooked or heated by non-owners of Microwave Ovens, shown in Table C-4, pages 59, 60, 61, and 62.

Since Tables C-2, -3, and -4 contain the non-disclosure legend of this Contract, and since the information and data shown in the tables sited above are also subject to the same non-disclosure provisions, a copy of this letter of authorization to disclose this material to the public should be incorporated into your report.

Sincerely yours,

MARKET RESEARCH CORPORATION OF AMERICA

I. J. Abrams, Director
Menu Census Service

IJA:mak

624 South Michigan Ave., Chicago, Ill. 60605, (312) 939-1500

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HOUSEHOLD MICROWAVE OVEN USE

5. Publication Date

6. Performing Organization Code

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16. ABSTRACT *(A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here.)*

The National Bureau of Standards (NBS) has been recommending test methods for measuring the energy efficiency of major household appliances. Part of this work involved comparing the usage of microwave ovens (MWO's) with that of other products for cooking or heating foods.

From a 1975 national survey of 2000 households, Market Research Corporation of America selected 96 households in which an MWO had been used to prepare foods (MWO owners), and a demographically matched set of 96 non-owner households. Data on Servings (dishes prepared) and Eatings (persons partaking of a Serving) were provided under contract to NBS. The main results were:

- There was little difference between the owner and non-owner households in terms of total Eatings or Servings or in the proportions of leftovers eaten.
- In owner households, MWO's accounted for approximately 10 percent of the Servings and 9 percent of the Eatings.
- Leftovers accounted for 9 percent of the Eatings for both groups, and for 11 percent of owner Servings and 9 percent of non-owner Servings.
- MWO's were used by owners for 26 percent of leftover Servings and 23 percent of leftover Eatings.

17. KEY WORDS *(six to twelve entries; alphabetical order; capitalize only the first letter of the first key word unless a proper name; separated by semicolons)*

Appliance efficiency; consumer survey; cooking and heating; energy; food preparation; leftovers; microwave ovens

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